



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

**Harvard Medical School
Library**



Gift of

Harvard College Library

**Harvard Medical School
Library**



Gift of

Harvard College Library

THE AUSTRALASIAN MEDICAL GAZETTE:

The Journal of the Australasian Branches of the
British Medical Association.

EDITED FOR THE PROPRIETORS BY

GEO. E. RENNIE, M.D., F.R.C.P. (Lond.), Sydney, N.S.W.

HY. LAURIE, M.B., MELBOURNE. H. S. NEWLAND, M.B., F.R.C.S. (ENG.), ADELAIDE, S.A.

————— QUEENSLAND. A. E. MARTIN, M.D., PERTH, W.A.

VOL XXVII.

FROM JANUARY TO DECEMBER, 1908.

Sydney :

Published by the New South Wales Branch of the British Medical Association,
at 121 Bathurst Street, Sydney.

1908.

INDEX.

	Page
Acromegaly, Case of, by G. L'Estrange, F.R.C.S.I.....	173
Air Embolism, Post Mortem Notes, by A. Palmer, M.B.....	229
Allen, Prof., Presidential Address, Australasian Medical Congress....	579
Ambrose, T., M.B., Ch.M., Aortic Aneurism Relieved by Calcium Chloride.....	411
Stomach Rupture—Partial Gastrectomy—Recovery....	667
American Fleet Surgeons in Auckland and Sydney.....	493
Andrews, A., M.R.C.S., Two Cases of Acute Mania.....	124
Ante and Post Partum Hemorrhage, by F. Barrington, M.S., F.R.C.S..	278
Aortic Aneurism Relieved by Calcium Chloride, by T. Ambrose, M.B., Ch.M.....	411
Appendicitis, Causation of, by H. C. Hinder, M.B., Ch.M.....	466
Operation for Acute, by W. Chisholm, M.D.....	467
Signs and Symptoms of, by F. W. Doak, L.R.C.P., L.R.C.S....	463
Armstrong, W. G., M.B., Ch.M., Diphtheria Carriers.....	350
Arneth's Classification of Neutrophile Leucocytes and its Application in Pulmonary Tuberculosis, by F. G. Griffiths, M.B. (illus.)....	457
Arrhythmia of the Heart, by J. M. Gill, M.D. (charts).....	63
Arsenical Poisoning, Fatal Case of, by C. H. E. Lawes, M.B., Ch.M....	544
Arthur, B., M.D., the Mimicry of Syphilis.....	132
Aspinall, Dr. A., Malta Fever.....	23
Asthma, Treatment of, by A. Stewart, M.B., Ch.M.....	214
and other Chest Troubles, Treatment of, Reference to Outdoor Sleeping, by E. S. Jackson, M.B., Ch.B.....	211
Australasian Medical Congress.....	91
255, 382, 425, 506, 616.....	697
Australasian Medical Corps Reserve	694
Australian Universities, 57, 107, 151, 200, 442, 383, 503.....	635
Axis Traction Forceps v. Telephone and Motor Car, by J. Kynaston Conch, M.D.....	398
Barrington, Fourness, M.S., F.R.C.S., Treatment of Retrodisplacement of Uterus.....	113
Ante and Post Partum Hemorrhage.....	278
Battle of the Clubs, Young, N.S.W. 266, 330.....	632
Berlin University, Recent Changes of the Medical Faculty.....	54
Binney, E. H., M.B., Ch.M., Gangrene of the Ileum.....	20
Three Interesting Intestinal Cases.....	356

	Page
Births, Marriages and Deaths, 61, 110, 162, 207, 268, 332, 390, 448, 512, 577, 646.....	708
Blood Pressure, by A. E. Mills, M.B.	12
Boelke, Grace, M.B., Norland Institute in Sydney.....	426
Books Received, 62, 162, 208, 268, 332, 390, 448, 578.....	708
Booth-Clarkson, J., L.R.C.P. & S., Prospects of the British Medical Profession and Suggestions for Improvements.....	496
Bozzi's Dilator in the Dilatation of the Os Uteri in Labour, by J. L. T. Isbister, M.B., Ch.B., B.Sc.....	277
Breast, Diffuse Hypertrophy of one, by T. Fiaschi, M.D. (Illustrated)	609
British and Foreign Clinics, by R. Worrall, M.D., 27, 117.....	166
British Medical Association News—New South Wales, 39, 186, 237, 306, 368, 423, 490, 552, 615.....	678
Council Meetings, 90, 142, 189, 238, 307, 423, 491.....	554
Victoria, 89, 139, 190, 238, 308, 368, 424, 492.....	679
West Australia, 39, 190, 241, 310, 370, 424, 493, 555, 615.....	680
Queensland, 91, 142, 239, 307, 370, 492, 554, 615.....	682
Ballarat.....	139
South Australia, 189, 190, 241, 319, 369, 424, 491, 554.....	680
Browne, J. W., A Case of Fleahy Mole.....	33
Bubonic Plague, the Protection of India from Invasion, by J. Ashburton Thompson, M.D.....	71
Burkitt, E. H., M.B., Surgical Notes	407
Burns and Scalds, Management of, by A. C. F. Halford, M.D.....	223
Butchers' Shops, Control of.....	56
Calmette's Ophthalmic Reaction, by C. Reissmann, M.D., B.Sc.....	361
Cameron, J. A., M.B., B.C., Acute Primary Pneumonia.....	602
Carcinoma of the Sigmoid—Double Pyosalpinx, by T. G. Wilson, M.D. F.R.C.S.....	131
Cerebellum, Cyst of the, by J. C. Verco, M.D., F.R.C.S.....	340
Cerebral Hemorrhage, after blow from cricket ball, by H. C. Hinder, M.B., Ch.M.....	545
Chapman, H. G., M.D., Precipitin Reaction in Hydatid Disease.....	1
Precipitin Reaction in Hydatid Disease.....	653
Chenhall, W. T., M.D., F.R.C.S., Disturbances of Menstruation.....	283
Chisholm, W., M.D., Operation for Acute Appendicitis.....	467

	Page
Cleland, J. B., M.D., Occurrence of Favus in Mice in W.A.....	180
Correspondence:—	
London.....	46, 99, 148, 197, 249, 317, 376, 435, 501, 561, 633, 689
Victoria.....	49, 251, 378, 562,
South Australia.....	50, 251, 487
Warning from West Australia....	149
Diagnosis of Tuberculosis.....	198
The Profession and the Clubs....	199
The Charter and the Council....	252
Diagnosis of Tuberculosis.....	253
Mosquito Distribution in Queensland.....	253
Poisoning by Tablets.....	319
Gympie Hospital.....	378
Expert Medical Evidence.....	437
Prescribing of Morphia.....	437
Chemists and Prescriptions....	562
Contract Practice Abuse, 635....	692
A Warning.....	694
Couch, J. Kynaston, M.D., Axis Traction Forceps v. Telephone and Motor Car.....	398
Intussusception Due to Inverted Meckel's Diverticulum....	416
Cudmore, A. M., M.B., B.S., F.R.C.S. Foreign Bodies in the Oesophagus	405
Cumpston, H., M.D., Diphtheria in West Australia.....	352
Davidson, A., M.D., Mental Diseases from a Sociological Point of View	440
David Lacey, Inquest on, by C. V. Wells, M.D.....	439
Diagnosis of Diseases of the Urinary Tract, by R. C. H. Forster, M.B., Ch.M.....	540
Diphtheria Carriers, by W. G. Armstrong, M.B., Ch.M., D.P.H.....	350
in West Australia, by H. Cumpston, M.D.....	352
Outbreak at Boulder, W.A., by R. A. Parker, M.B., M.S.	670
Dixon, T. S., M.B., C.M., Malta (undulant) Fever.....	23
Doak, F. W., L.R.C.P., L.R.C.S., Signs and Symptoms of Appendicitis.....	463
Eclampsia, Prophylaxis of Puerperal, by D. Hardie, M.D.....	526
Editorials:—	
The Profession and the State....	35
Recrudescence of Plague in Sydney	36
Sydney Milk Supply.....	85
The Scientific use of Evidence in Surgical Practice.....	86
Diagnosis of Tuberculosis.....	135
Law and Medicine.....	136

Editorials—continued.	Page
What is a Hospital ?	182
The Chemical Control of the Body	183
Prophylaxis of Syphilis	232
Proposed Amendment of the Medical Acts	233
Rational Treatment	301
Treatment of Gastric Ulcer	302
Hospital Reform	363
Expert Medical Evidence	364
Coroners and Inquisitions	418
Inebriety in New South Wales	419
The Profession and the Public	486
The Death Sentence	486
Medical Education	548
Quacks and Quackery in New South Wales	549
The Australasian Medical Congress	611
Hospital Management	612
The Prevalence of Syphilis	674
Infant Life Protection	675
Enteritis, Gastro, in Children—Causes—Prophylaxis and Treatment, by E. A. Officer, M.B., Ch.B.	537
Kvava, J. H., M.B., B.S., School Hygiene	333
Extra-uterine Tumour in a Pregnant Woman, by J. Macbain Ross, M.B.C.S.	546
Extradrural Hemorrhage, Operation—Recovery, by H. Gilbert, M.B., F.B.C.S.	292
Favus in Mice, Occurrence of, in W.A., by J. B. Cleland, M.D.	180
Femur, Fracture of the, in the New born, by J. L. T. Isbister, M.B., Ch.B., B.Sc.	414
Fiaschi, T., M.D., Diffuse Hypertrophy of one Breast (illustrated).	609
T., M.D., Fracture of Skull, Three Cases of	79
T., M.D., Ch.D., Resection of Portion of Liver (illustrated)	394
T., M.D., Syphilitic Necrosis of Skull (illustrated)	294
Filariasis as it Appears in Queensland, by E. S. Jackson, M.B., Ch.B.	344
Forster, R. C. H., M.B., Ch.M., Diagnosis of Diseases of Urinary Tract	540
Fracture of Vault—Insanity, by B. Poulton, M.D.	291
Gangrene of the Ileum, by E. H. Binney, M.B., Ch.M.	20
Gastric Ulcer, Perforated, Operation, Recovery, by F. J. T. Sawkins, M.B., Ch.M.	82
Gault, A. H., M.D., Case of Toxæmia of Pregnancy	479
Gastro-enteritis in Children—Causes—Prophylaxis and Treatment, by E. A. Officer, M.B., Ch.B.	537
Gibson, J. L., M. D., Albuminuric Retinitis of Pregnancy	532
Gilbert, H., M.B., F.B.C.S., Extradrural Hemorrhage, Operation—Recovery	292
Giles, W. A., M.B., Ch.M., Ring Cancer of the Sigmoid Flexure	126
Gill, J. M., M.D., Arrhythmia of the Heart (charts)	63
Post-diphtheritic Heart Failure	53
Gillespie, Dr., Malta Fever	284

	Page
Gillies, Sinclair, M.D., Ophthalmology—Reaction in the Diagnosis of Tuberculosis	216
Griffiths, F. G., M.B., Arneth's Classification of Neutrophile Leucocytes and its Application in Pulmonary Tuberculosis (illustrated)	457
Hæmorrhage, Ante and Post Partum, by F. Barrington, M.D., F.R.C.S.	278
Cerebral, after Blow from Cricket Ball, by H. C. Hinder, M.B., Ch.M.	545
Two Cases of in New-born Children, by J. Morton, M.B., Ch.M.	415
Haffine, W. M., C.I.E., The Present Methods of Combating the Plague	74
Halford, A. C. F., M.D., Management of Burns and Scalds	223
Hamilton, A. A., M.B., Ch.B., Midwifery Statistics	473
Handcock, C. L., M.B., Ch.M., Unfavourable Case for Operation—Recovery	410
Hardie, D., M.D., Prophylaxis of Puerperal Eclampsia	526
Hayward, W. T., M.R.C.S., Medical Defence in South Australia	19
Relationship between the Medical Profession and the Coroner	439
Health of Adelaide, Annual Report	104
of Melbourne " "	505
of New Zealand " "	322
of Queensland " "	103
of Sydney " "	638
Heart Failure, Post Diphtheritic, by J. M. Gill, M.D.	534
Henrichsen, Dr., Remarkable Case of Injury to Spine	412
Henoch's Purpura, by W. C. Howie, L.R.C.P.	669
Hinder, H. C., M.B., Ch.M., Curious Case of Ureteral Obstruction (illustrated)	355
Causation of Appendicitis	466
Cerebral Hemorrhage after Blow from Cricket Ball	545
Hone, F. S., M.B., Ch.B., Acute Pancreatitis—Laparotomy—Recovery	7
F. S., M.B., B.S., Anæsthesia in Labour	475
Hospital Abuse, by Ralph Worrall, M.D.	665
Hospital Intelligence, 59, 106, 158, 203, 259, 329, 386, 444, 508, 574, 642	703
Howie, W. C., L.R.C.P., Henoch's Purpura	669
Hydatid of Brain, by J. O. Verco, M.D., F.R.C.S.	290
Large Pelvic, Two Cases, Operations and Recovery, by F. J. T. Sawkins, M.B., Ch.M.	179
Infantile Paralysis Simulating Meningitis, Tendon Transplantation, by A. J. Turner, M.D.	120
Inflammation, Treatment of by Passive Congestion, by C. MacLaurin, M.B., O.M.	360
Influenza, Various Types of, by E. W. Kerr Scott, M.B.	480
Inhaling Apparatus	330
Insanity in Australia, 156, 571	699
International Congress on Tuberculosis, Washington, D.C.	254

	Page
Interascapulo Thoracic Amputations, Four Successful, by W. J. S. McKay, M.B., Ch.M.....	226
Intestinal Cases, Three Interesting, by E. H. Binney, M.B., Ch.M.....	356
Intracranial Tension, Treatment of Increased, by R. H. Marten, M.D.	227
Intussusception due to Inverted Meckel's Diverticulum, by J. K. Conch, M.D.	416
Isbister, J. L. T., M.B., Ch.B., B.Sc., Bozzi's Dilator in the Dilatation of the Os Uteri in Labour.....	277
Fracture of the Femur in the New-born.....	414
Jackson, E. S., M.B., Ch.B., Filari- asis as it appears in Queensland ..	344
Treatment of Asthma and other Chest Troubles, Reference to Out-door Sleeping.....	211
Jamieson, S., M.B., Ch.M., Tumour of Breast, Peculiar Histological Characters of.....	81
Kidney Cases, Notes on Some, by A. J. H. Saw, M.D., B.S.....	177
Labour, Anaesthesia in, by F. S. Hone, M.B., B.S.....	475
Lawes, C. H. E., M.B., Ch.M., Fatal Case of Arsenical Poisoning.....	544
Leprosy, Notes on by J. Ashburton Thompson, M.D.....	209
Letters and Other Communications Received from Correspondents .. 62, 110, 162, 208, 268, 332, 390, 448, 512, 578, 646.....	708
L'Estrange, G., F.R.C.S.I., Case of Acromegaly	173
List of Members of the N. S. Wales Branch of the B.M.A.....	110
Literary Notes	256, 327, 382,
Liver, Resection of Portion of the, by T. Fiaschi, M.D., Ch.D. (illus.) ..	394
Love, Wilton, M.B., Medical Matters in Queensland.....	3
MacLaurin, C., M.B., C.M., Shelf Operation for Movable Kidney... Some New Surgical Work in 1907.....	461 175
Treatment of Inflammation by Passive Congestion.....	360
Malformation of the Pelvic Organs in the Female, by H. C. Taylor Young, M.D., C.M.....	607
Malta Fever (Undulant), A Case of, by T. S. Dixon, M.B., C.M., Dr. Gillespie, and Dr. A. Aspinall.....	23
Mania, Two Cases of Acute, by A. Andrews, M.R.C.S.....	124
Marten, R. H., M.D., Treatment of Increased Intracranial Tension..	227

	Page		Page		Page
McKay, W. J. B., M.B., Oh.M., Four Successful Intercapulo-Thoracic Amputations	226	Medical Notes—Continued.		Mental Factor, The, in Medical Practice, Address before the Medical Congress, by G. E. Rennie, M.D., F.R.C.P.	513
McMurray, W., M.D., Presidential Address, Australasian Medical Congress, Diseases of Skin, and Radiography	651	Newington College (Sydney), Old Boys' Union	383	Midwifery Statistics, by A. A. Hamilton, M.B., Ch.B.	473
Medical Appointments, 61, 109, 161, 207, 267, 331, 388, 447, 511, 577, 645, 707		Scot's College (Sydney), Old Boys' Union	388	Mills, A. E., M.B., Observations on High Blood Pressure	12
Medical Matters in Parliament	567	Cobar Municipal Council and Food Inspection	388	Mole, A Fleahy, Case of, by J. W. Browne	33
Medical Miscellany, 45, 98, 147, 196, 248, 316, 375, 434, 500, 560	638	Lunacy Patients, Leave System	397	Montgomery, Dr., Paranoia, with Some Cases	598
Medical Notes:—		United States Fleet, Dinner to the Surgeons of	426	Month, The:—	
Enteric Fever in Wellington, New South Wales	3	Opium Traffic	411	The Alleged Conspiracy of Medical Men in West Australia	37
Royal College of Physicians of London, the Weber-Parkes Prize and Medals	32	Friendly Societies' Subvention	446	Mr. Beale's Report on Drugs and Patent Medicines	37
Inane in New South Wales, New Hospital for	40	Sydney Hospital Saturday	446	Poison in Patent Medicines	37
Hobart Nursing Association	54	Health Department of New Zealand	446	The Rontgen Rays in Medico-legal Work	37
Farewell to Prof. A. Liversidge	59	West Australian Increase of Population	447	Saline Infusions	38
Inebriates in Victoria	60	Masseuse, Charge of Manslaughter Against a	447	Dispensing of Prescriptions by Chemists	38
Australian Historical Society	60	Adulterated Milk	470	The Melbourne Hospital Site	87
Emergency Fund, New South Wales	93, 155	Nursing at the Melbourne Hospital	479	The Care of Feeble-minded Children	87
Mosquito, the Conquest of the	93	Plague at Honolulu	503	The Society of Tropical Medicine and Hygiene	87
Hobart Municipal Council, Common Hospital for Scarlet Fever and Diphtheria	100	Fresh Air, Sir Philip S. Jones on	510	The Labour Party and the Hospitals	88
Charitable Donations and Bequests, 104, 151, 265, 388, 446, 499, 510, 546, 555, 644	704	Home for Incurables, Sydney	510	Medical Inspection of School Children in South Australia	88
Sydney Hospital Saturday Fund	107	Early Hospital in Sydney	510	The New Melbourne Hospital	137
Launceston (Tasmania) Hospital	108	Yalgogrin Microbe	526	Municipal Dispensaries	137
After Care Association	108	Dr. T. G. Wilson, Adelaide Commissioner, Enquire Construction and Working American Hospitals	547	Amendment of the Medical Practitioners' Acts of N.S.W.	137
Queen Victoria Homes for Consumptives	108	Woman's Hospital, Sydney	555	The True Aims of the A.N.A.	137
Victorian Inebriate Retreat	108	District Nursing in Launceston, Tasmania	559	School Sanitation	138
Hobart, Design for Children's Hospital	116	Sanitary Inspectors	575	Inspection of Private Hospitals in West Australia	138
Epileptics, Wendouree Asylum, Victoria	130	Eight Hour Day for Nurses	576	Compulsory Notification of Pulmonary Tuberculosis	184
Walhalla, Victoria, Proposed Hospital	142	Old Times in Tasmania	576	After Care Association for Consumptives	184
Death Under Chloroform	155	Government Charitable Aid in Tasmania	576	Macedon Sanatorium, Victoria	184
Rhodes Scholar, Victoria	180	German Scientific Exploration in the Pacific	595	Clinical Study at the Melbourne Hospital	185
Kyoomba Sanatorium, Queensland	185	Dr. Jas. Boyd's Resignation from the Bendigo (Vic.) Benevolent Asylum	605	Treatment of Inebriety in Victoria	185
Commonwealth Quarantine Bill	191	Fresh Air League	609	Medical Registration in Victoria	234
Hospital Saturday in Dunedin	191	Commissioner of Public Health, Queensland re Destruction of Mosquitoes	614	Medical Men and the Law	235
Tasmanian Women's Health Association	200	Sir Galahad Tile Pictures in Sydney Hospital	616	Infantile Mortality and the Milk Supply	235
Brilli Cottage Hospital, Dr. Steele Elected	205	Dr. Wiley, of Washington, re Danger in Cracked Dishes	635	Therapeutic Value of Whisky	236
Municipal Dispensaries in Sydney	206	A.M.P. Society, Diamond Jubilee	637	Administration of Anæsthetics at the Melbourne Hospital	236
Women's College, Sydney University	206	German Physicians, Association to Promote Economic Interests of Practitioners' Congress at Lille	644	Medical Registration in Victoria	303
Hobart, The Crèche	206	Medical Registration in New South Wales	253	Pure Milk Depot	304
Appendicitis More Common than Formerly	263	Balmain Hospital Collection	653	New Consumptive Sanatorium	304
Inebriates, Care of in Victoria	265	Accommodation for Nurses Prince Alfred Hospital, Sydney	657	Inebriates Home for Queensland	305
Medical Inspection of School Children in South Australia	265	Candidates for Police Force, Victoria	667	Multiple Hospital Appointments	305
Precipitin Test in Criminal Cases	265	Messrs. Coffill & Co., Weighing Balance	682	Tuberculosis, International Congress on	305
Bendigo Medical Society	265	Drs. Cudmore and Newland elected Adelaide Dental Board	685	The Care of Consumptives in Victoria, 365	489
Melbourne Hospital, Economy and Efficiency of Committee	265	Animal Parasites in Australia	688	Insanitary Condition of the Sydney Post Office	366
Royal Sanitary Institute	265	Cremation Society of N.S.W.	694	The Rights of the Prescription	366
Hospital Appeal to Women	266	Launceston Children's Hospital, Tasmania	703	Medical Men as Hospital Managers	366
Hospital Saturday Collections, Annual, Sydney	266	Royal Society of New South Wales Newcastle Hospital Saturday Collection	704	Bedfern Dispensary	367
Sydney Norland Institute	266	St. John Ambulance Association, Sydney	704	Cats and Plague	367
Mater Misericordie Hospital, Foundation Stone	292	Medical Association of Victoria Entertained	705	Death of Sir Thomas N. Fitzgerald	367
Melbourne University, over 1000 Students	300	First Crèche in Victoria	705	Intermediate Hospitals	420
Population of West Australia	319	Government Grants to Victorian Hospitals	705	Life Under Increased Atmospheric Pressure	420
Melbourne University, Special Grant to Dr. Kilvington	320	Rat-proof Wharves, Sydney	705	After Care of Consumptives in New Zealand	421
Sale of Poisons	330	Medico-Ethical and Medico-Legal, 58, 154, 199, 256, 326, 568	641	Australasian Trained Nurses' Association	421
What is a Private Hospital?	330	Melbourne (New) Hospital	264	Public Telephones	421
Prof. Anderson Stuart's Testimonial Fund	338	Menstruation, Disturbances of, by W. T. Chenhall, M.D., F.R.C.S.	283	Medical Registration in Tasmania	422
The Health of Children	338	Mental Diseases from a Sociological Point of View, by A. Davidson, M.D.	449	The Victorian Sanatorium for Consumptives	422
Victorian Friendly Societies' Funds	338			Expert Medical Evidence	487
Victorian Trained Nurses' Association	338			Anti-quackery in New Zealand	487
The Demiliquin Hospital, Architects' Plans	338			Friendly Societies in Victoria	488

Month, The—Continued.	Page
State Registration of Trained Nurses.....	550
Suggested Amendment of the Tasmanian Medical Act.....	551
Building Reform.....	551
A University for Queensland.....	676
Mosquito Extirmination.....	676
Sweating Women Doctors.....	677
Tropical Medicine.....	677
Pure Food.....	677
Morton, John, M.B., Ch.M., Two Cases of Hemorrhage in New-born Children.....	415
Movable Kidney, Shelf Operation for, by C. MacLaurin, M.B., C.M.....	461
Newmarch, B. J., M.R.C.S., L.R.C.P. Disabilities of the Profession.....	163
Norland Institute, in Sydney, by Grace Roelke, M.B.....	426
North Queensland, Notes from, by R. A. O'Brien, M.B.....	121
Obituary, 57, 93, 255, 323, 387, 428, 555, 632.....	688
O'Brien, R. A., M.B., Notes from North Queensland.....	121
Oesophagus, Foreign Bodies in the, by A. M. Cudmore, M.R., B.S., F.R.C.S.....	405
Officer, E. A., M.B., Ch.B., Gastro-Enteritis in Children—Causes—Prophylaxis and Treatment.....	537
Ophthalmia in Queensland.....	264
Ophthalmolo-reaction in the Diagnosis of Tuberculosis, by S. Gillies, M.D.....	216
Palmer, Arthur, M.B., Air Embolism Post-mortem Notes.....	229
Pancreatitis, Acute, Laparotomy, Recovery, by F. S. Hone, M.B., Ch.B.....	7
Pan-Hysterectomy, Impacted Shoulder, Tonic Contraction of Uterus, by R. Worrall, M.D. (Illustrated)	274
Paranoia, with some Cases, by Dr. Montgomery.....	598
Parker, R. A., M.B., M.S., Diphtheria Outbreak in Boulder, W.A.....	670
Pelvic Organs in the Female, Malformation of, by H. C. Taylor Young, M.D., C.M. (Illustrated).....	607
Perineal Rupture, Unusual Case, by W. Spencer, M.D.....	416
Personal Items, 60, 108, 161, 206, 266, 331, 388, 447, 510, 576, 645.....	705
Plague, Early Diagnosis, by J. S. Purdy, M.D., C.M., D.P.H.....	391
the Present Methods of Combating the, by W. M. Haffkine, C.I.E.....	74
Pneumonia, Acute Primary, by J. A. Cameron, M.B., B.C.....	602
Pneumatic Chambers.....	259
Poisoning, Fatal Case of Arsenical, by C. H. E. Lawes, M.B., Ch.M.....	544
Post-diphtheritic Heart Failure, by J. M. Gill, M.D.....	584

	Page
Poulton, B., M.D., Address in Surgery, Australasian Medical Congress	588
— Fibro-cartilaginous Tumour of Dura Mater	289
— Fracture of Vault—Insanity	291
Precipitin Reaction in Hydatid Disease, by Prof. D. A. Welsh, B.Sc., M.D., and H. G. Chapman, M.D., B.S.	1
— in Hydatid Disease, by Prof. D. A. Welsh, B.Sc., M.D., and H. G. Chapman, M.D., and J. C. Storey	653
Pregnancy, Albuminuric Retinitis of, by J. L. Gibson, M.D.	532
Pregnancy, Case of Toxæmia of, by A. H. Ganit, M.D.	479
Presidential Address, Australasian Medical Congress, by Prof. Allen	579
— Disabilities of the Profession, by B. J. Newmarch, M.R.C.S., L.R.C.P.	163
— Medical Matters in Queensland, by W. Love, M.B.	3
— Medical Defence in South Australia, by W. T. Hayward, M.B.C.S.	18
— School Hygiene, by J. H. Evans, M.B., S.B.	333
— in Surgery, Australasian Medical Congress, by B. Poulton, M.D.	588
— Australasian Medical Congress: Obstetrics and Gynecology by E. T. Thring, F.R.C.S. (Eng.)	647
— Australasian Medical Congress: Diseases of Skin and Radiography, by W. McMurray, M.D.	651
Proceedings of Australasian Medical Boards, 61, 109, 162, 207, 267, 332, 389, 447, 511, 577, 646	707
Prospects of the British Medical Profession, and Suggestions for Improvements, by J. Booth-Clarkson, L.R.C.P., L.R.C.S.	596
Public Health, 55, 101, 152, 201, 257, 320, 384, 442, 504, 564, 636	695
Puerperal Eclampsia, Prophylaxis of, by D. Hardie, M.D.	526
Puerperal Sepsis, by T. G. Wilson, M.D., F.R.C.S.	658
Purdy, J. S., M.D., C.M., D.P.H., Early Diagnosis of Plague	391
Pure Milk Supply in Victoria	383
Pyletitis and Toxæmia of Pregnancy, with Jaundice, by T. G. Wilson, M.D., F.R.C.S.	606
Quackery and Sale of Patent Medicines	50
Queen's Maternity Home, Adelaide, Review of the First Six Years' Work at, by T. G. Wilson, M.D., F.R.C.S.	471
Reflex Actions, Significance of the Pathological Variations of, by G. E. Rennie, M.D., F.R.C.P.	67
Reissmann, C., M.D., B.Sc., Calmette's Ophthalmic Reaction	361
— Tuberculosis and its Treatment by the Physician (illustrated)	269
Relationship between the Medical Profession and the Coroner, by W. T. Hayward, M.D.	453

	Page
Rennie, G. E., M.D., F.R.C.P., The Mental Factor in Medical Practice, Address at the Medical Congress.	513
—Significance of the Pathological Variations of Reflex Actions	
Reports of Other Societies—	
Western Medical Association, N.S.W., 40, 311	682
Medical Defence Society of New South Wales.	
New South Wales Medical Union.	191
Western Suburbs Medical Association	242
University of Sydney Medical Society	242
Medical Section of the Royal Society of Tasmania.	243
South Sydney Medical Association	311
Sydney and Suburban Provident Medical Association, Annual Meeting.	616
Retinitis, Albuminuric, of Pregnancy by J. L. Gibson, M.D.	532
Review of Current Medical Literature—	
Surgery, 41, 192, 371	556
Therapeutics, 43, 194, 372.	557
Ear, Nose and Throat, 43, 195 374	559
Obstetrics and Gynaecology, 94, 244, 430	693
Ophthalmology, 96, 246, 431	694
Neurology, 97, 247, 432	686
Medicine, 143, 312	496
Pathology, 144, 313	497
Pædiatrics, 145, 315	498
Reviews—	
Pathogenic Bacteria, Text-book on, by J. McFarland, M.D.	34
Hip Disease, Rational and Effective Treatment of, by P. B. Bennie, M.D.	34
Diagnosis in Ordinary Surgery, Modern Methods of, by E. Deansley, M.D.	34
Organic Chemistry for Medical Students, by G. von Bunge.	83
Children, Treatment of Diseases of, by C. G. Kerley, M.D.	83
Hygiene and Public Health, by L. C. Parkes, M.D., and H. E. Kenwood, M.D.	84
Cod Liver Oil and Cod Liver Oil Emulsion and Tuberculous Pigs, by J. W. Wells, M.D.	84
Pelvic Inflammations in the Female, by T. Wilson, M.D.	84
Sanitary Record Year-book and Diary	84
Pathology, a Manual of, by G. McConnell, M.D.	84
Opsonic Method of Treatment, by E. W. Allen, M.B., B.S.	133
Movable Kidney and other Displacements and Malformations, by D. Newman, M.D.	134
Immediate Care of the Injured, by S. S. Morrow, M.D.	134
Cancer, Reduction of, by Hon. Rolfo Russell	134
Normal Histology and Microscopical Anatomy, by J. S. Ferguson, M.D.	181
Histology, Text-book of, by F. E. Bailey, M.D.	181
Histology, Essentials of, by E. A. Schafer, LL.D., Sc.D.	181
Antiseptic Methods for Surgical Nurses and Dressers, by H. Upcott, F.R.C.S.	181
Blood Stains, their Detection and Determination of Sources, by Major W. D. Sutherland, M.D.	230
Trypanosomes and Trypanosomiasis, by Laveran and Mesnil.	230
Progressive Medicine, by D. N. Paton	230

Page	Page	Page
Reviews—Continued.		
Minor Surgery, Text-book of, by E. M. Foote, M.D.	231	
Cancer, by G. S. Bigg, F.R.C.S.	300	
Lungs, Diseases of, by R. H. Babcock, M.D.	300	
Fever Nursing, by E. C. Register, M.D.	300	
Medical Laboratory Methods and Tests, by H. French, M.D., F.R.C.P.	362	
Laboratory Studies in Tropical Medicine, by C. W. Daniels, M.B., M.R.C.S.	362	
Fractures, Treatment of, by C. L. Scudder, M.D.	362	
Care and Feeding of Children, by L. E. Holt, M.D.	362	
Diseases of Children, for Nurses, by R. S. McCombs, M.D.	362	
Medical Gynecology, by Howard A. Kelly, M.D.	417	
Green's Encyclopædia and Dictionary of Medicine and Surgery	417	
Index of Treatment, edited by Robt. Hutchison, M.D., F.R.C.P.	417	
Urinary Organs, Surgical Diseases of the, by P. J. Freyer, M.D.	417	
Syphilology and Venereal Disease, by C. F. Marshall, M.D., F.R.C.S.	488	
Manual of Medical Jurisprudence, Toxicology and Public Health, by W. G. A. Robertson, M.D.	673	
Extra Pharmacopœia, by Martin-dale and Westcott.	673	
Reference Handbook of Obstetric Nursing, by W. E. Wilson, M.D.	673	
Syphilis: A Treatise for Practitioners, by E. L. Keyes, M.D.	483	
— in the Army, by Major H. O. French, B.A.M.C.	483	
Electric Ions and their Use in Medicine, by Prof. Stephani Leduc.	484	
Medical Annual: A Dictionary of Materia Medica and Therapeutics, by F. J. Charteris, M.D.	484	
Diseases of the Nose and Throat, by H. Tilley, B.S., M.B.O.S.	484	
Plague in Queensland, Report by Dr. B. B. Ham.	484	
Beri Beri, Cause and Prevention of, by W. I. Braddon, M.B., B.S., F.R.C.S.	546	
Clinical Examination and Treatment of Sick Children, by J. Thompson, M.D.	547	
Nervous System, Diseases of, Edited by Prof. A. Church, M.D.	547	
Applied Anatomy—Surgical, Medical and Operative, by J. McLachlan, M.D.	610	
Ions, Theory of, by Wm. Tibbles, M.D.	610	
Skin Diseases: their nursing and treatment, by G. N. Meachen, M.D.	610	
Ring Cancer of the Sigmoid Flexure, by W. A. Giles, M.B., Ch.M.	126	
Ross, J. McBain, M.R.C.S., Extra-uterine Tumour in a Pregnant Woman.	546	
Salter, A. G., M.B., Ch.B., Tetanus.	341	
Sanitary Milk.	566	
Sarcoma, Case of late Recurrence, by C. E. Todd, M.D.	180	
— Small round cell of Head of Femur, by O. J. Weedon, M.B.	415	
Sarcomatous Tumour of Ileum, removed by resection of bowel and end-to-end anastomosis by suture—Recovery, by R. Worrall, M.D., M.Ch. (illustrated).	359	
Saw, A. J. H., M.B., B.S., M.D., Notes on some Kidney Cases.	177	
Sawkins, F. J. T., M.B., Ch.M., Perforated Gastric Ulcer—Operation—Recovery.	82	
— Two Cases of Large Pelvic Hydatid—Operations—Recovery	179	
Sclerosis, Case of Disseminated, by J. M. Gill, M.D.	34	
Scott, E. W. K., M.B., Various Types of Influenza.	480	
Silver Jubilee of the Sydney University Medical School.	381	
Skull, Fracture of, Three Cases, by T. Fiaschi, M.D.	79	
Spencer, Walter, M.D., Unusual Case of Perineal Rupture.	416	
Spine, Injury to the—Remarkable Case, by Dr. Heinrichsen.	412	
Stewart, A., M.B., Ch.M., Treatment of Asthma.	214	
Stokes-Adams Disease, Case of, by C. E. Williams, M.D.	414	
Stomach—Rupture—Partial Operation—Recovery, by T. Ambrose, M.B., Ch.M.	667	
Storey, J. C., M.B., Precipitin Reaction in Hydatid Disease.	653	
Surgery, Some New Work, in 1907, by C. MacLaurin, M.B., Ch.M.	175	
Surgical Notes, by E. H. Burkitt, M.B.	407	
Swift, H., M.D., Treatment of Tubercular Joint by Open Cut and Exposure to Sunlight.	221	
Syphilis, the Mimicry of, by B. Arthur, M.D.	182	
Syphilitic Necrosis of Skull, by T. Fiaschi, M.D. (illustrated).	294	
Tetanus, by A. G. Salter, M.B., Ch.B.	341	
Thompson, J. Ashburton, M.D., Notes on Leprosy.	209	
— The Protection of India from Invasion by Bubonic Plague	71	
Thring, E. T., F.R.C.S. (Eng.), Presidential Address, Australasian Medical Congress, Obstetrics and Gynecology.	647	
Todd, C. E., M.D., Case of Late Recurrence of Sarcoma.	180	
— Treatment of Tubercular Disease of the Joints.	166	
Tropical Medicine, Far Eastern Association of.	385	
Tubercular Disease of the Joints, Treatment of, by C. E. Todd, M.D.	166	
— Joint Disease, Treatment by Open Cut and Exposure to Sunlight, by H. Swift, M.D.	221	
Tuberculosis and its Treatment by the Physician, by O. Reissmann, M.D. (illustrated).	269	
Tumour, Extra-Uterine, in a Pregnant Woman, by J. Macbain Ross, M.R.C.S.	546	
— Fibro-Cartilaginous of Dura Mater, by J. C. Verco, M.D., and B. Poulton, M.D.	289	
— of Breast, Peculiar Histological Characters, by S. Jamieson, M.B., Ch.M.	81	
Turner, A. J., M.D., Infantile Paralysis, Simulating Meningitis, Tendon Transplantation.	120	
Unfavourable Case for Operation, Recovery, by C. L. Handcock, M.B., Ch.M.	410	
Ureteral Obstruction, Curious Case of, by H. C. Hinder, M.B., Ch.M. (illustrated).	355	
Urinary Tract, Diagnosis of Diseases of, by B. C. H. Forster, M.B., Ch.M.	540	
Uterus, Retro-displacements of the Treatment of, by Fourness Barrington, M.B., F.R.C.S.	113	
Verco, J. C., M.D., F.R.C.S., Fibro-Cartilaginous Tumour of Dura Mater.	289	
— Hydatid of Brain.	290	
— Cyst of the Cerebellum.	340	
Weedon, O. J., M.B., Small Round Cell Sarcoma of Head of Femur.	415	
Wells, C. V., M.B., Inquest on David Lacey.	438	
Welsh, D. A., B.Sc., M.D., Prof. of Pathology, Precipitin Reaction in Hydatid Disease.	1	
— Precipitin Reaction in Hydatid Disease.	653	
Williams, C. E., M.D., Case of Stokes-Adams Disease.	414	
Wilson, T. G., M.D., F.R.C.S., Review of First Six Years' Work at the Queen's Maternity Home, Adelaide.	471	
— Carcinoma of Sigmoid, Double Pyosalpinx.	181	
— Pyelitis and Toxæmia of Pregnancy, with Jaundice.	606	
— Puerperal Sepsis.	658	
Worrall, R., M.D., Sarcomatous Tumour of Ileum, Removed by Resection of Bowel and End to End Anastomosis by Suture—Recovery (illustrated).	359	
— Impacted Shoulder, Tonic Contraction of Uterus, Pan-hysterectomy (illustrated).	274	
— Some British and Foreign Clinics.	27, 117, 166	
— Hospital Abuse and the National Character.	665	
Young, H. C. Taylor, M.D., O.M., Malformation of the Pelvic Organs in the Female (illustrated).	607	

W. E. SMITH,
Bridge Street, Sydney.

AUSTRALASIAN MEDICAL GAZETTE

No. 316.

SYDNEY, JANUARY 20TH, 1908.

VOL. XXVII., No. 1.

THE PRECIPITIN REACTION IN HYDATID DISEASE.

By D. A. Welsh, M.A., B.Sc., M.D., Professor of Pathology, and H. G. Chapman, M.D., B.S., Demonstrator in Physiology, University of Sydney.

WHEN molecules of an alien protein are introduced within the animal body, a reaction commonly sets in, so that anti-substances appear in the serum of the injected animal. Hence, when a man harbours in his tissues a living parasite, or brood of parasites, the interchange of protein molecules between the parasite and the human tissues may be equivalent to a series of inoculations. One effect of a parasitic invasion may, therefore, be that the human host is undergoing an irregular and protracted immunisation. In such circumstances the body fluids of the human host may contain anti-substances specifically directed against the protein molecules of the parasite. In particular, precipitins may appear, and their presence may form the basis of a test of some diagnostic value.

In hydatid invasions these conditions are typically fulfilled, and our attention was directed to this circumstance by the recent work of Fleig and Lisbonne,¹ who with very limited material at their command made a number of most suggestive observations. They succeeded in demonstrating the existence of a specific precipitin in the serum of an individual affected with a hydatid cyst, and also in the serum of animals immunised with hydatid products. They also emphasised the diagnostic significance of the reaction. Previous work² by Ghedini, by Joest, and by Gherardini had yielded contradictory results.

With the more abundant material at our disposal we have been able to corroborate and extend the main observations of Fleig and Lisbonne in regard to hydatid invasions in the human subject. Within two months we have investigated the precipitin reaction in nine certain hydatid invasions, in four suspected cases, and in five healthy controls. We find that, when a sufficiency of blood serum is mixed with a suitable hydatid fluid and the mixture allowed to stand from 18 to 24 hours at room temperature, a well-marked

precipitate never fails to appear if the serum be taken from a patient certainly infested with hydatids. We also find that precipitation does not occur when the serum is taken from persons not so infested. In the four doubtful cases examined by us a negative reaction was obtained, and at operation in each case the absence of hydatid invasion was revealed.

These results are so consistent, though as yet few in number, that they encourage us in the belief that in the precipitin test for hydatid invasion we have a reliable means of diagnosis. We find, however, that certain conditions are essential to the satisfactory performance of the test.

In dealing with precipitin antisera prepared in the rabbit by injections of alien blood serum or of egg-white, we found that two drops of the antiserum (0.1 cc.) were usually sufficient to yield a well-marked precipitate (i.e., a deposit of 1 or 2 mm. in depth) in the small tubes of about 4 mm. bore employed in our experiments. We were also led to the conclusions that the precipitate was derived mainly from the antiserum, and that different antisera might differ greatly in their precipitable content.³

Now, the antiserum developed in a hydatid patient has, in our experience, usually proved to be of low precipitable content—at least that is our explanation of the fact, also recorded by Fleig and Lisbonne, that about 12 drops of the antiserum are usually required to yield a satisfactory amount of deposit. Only in one instance have we encountered a hydatid antiserum of high precipitable content, and in that instance 11 drops of the antiserum with 1 cc. hydatid fluid yielded a precipitate of 6 mm. depth in a tube of about 4 mm. diameter. We have occasionally obtained precipitates of 1.5 mm. with half that amount of antiserum. Nevertheless, the larger quantity should be preferred—not less than 1 cc. of blood being collected—and with a little practice this can be done without inconvenience to the patient. Only clear serum, freed from red cells, should be used.

As noted by Fleig and Lisbonne, the anti-substances in the serum of a hydatid patient

may gradually disappear after operation. That this disappearance of the precipitin is not necessarily associated with removal of all the cysts is shown by one of our cases. In a man, aged 42 years, with multiple hydatids of the liver (not all of which were removed at operation), we found a well-marked reaction before operation. At the end of the sixth week, and also at the end of the seventh week, after operation his serum yielded only a minute trace of deposit with hydatid fluid, although many cysts were still present in the liver. By this time, however, the patient was becoming rapidly weaker and more emaciated, and he died in the eighth week after operation. It may be that in these circumstances his capacity for reaction was failing.

On the other hand, a girl, 14 years old, with multiple hydatids of the peritoneum following a ruptured hydatid of the liver, gave a well-marked reaction eight weeks after operation. She was well nourished and healthy-looking, and was leaving the hospital apparently cured. The indication, however, was that she was still infested with hydatids and that her tissues were reacting to their presence. This indication coincides with the prognosis of the surgeon who anticipates a recurrence.

In regard to the hydatid fluid, it must of course be clear and free from flocculi, as it commonly is in uncomplicated cysts. Our practice has been to pass the hydatid fluids through a Chamberland filter. We have found that more abundant precipitates were obtained with 1 cc. hydatid fluid than with 2 cc., as recommended by Fleig and Lisbonne. In a previous communication⁴ we had noted how small an amount of the homologous protein (in this case the hydatid fluid) was required to produce marked precipitation in the antiserum. Moreover, the rapidity and extent of most chemical interactions is conditioned by the concentration of the interacting substances, and the precipitin reaction appears to be no exception.

In the course of our experiments we encountered a remarkable phenomenon to which we have not seen any reference. We had prepared a series of seven tubes each containing several drops of blood serum (three certain hydatids, two doubtful hydatids and two healthy controls), and to each tube we added 2 cc. clear hydatid fluid from one of these cases. To our surprise no precipitate appeared in any of the tubes, even after incubation at 42°C. for over an hour, and at the

end of 48 hours at the room temperature all the tubes were still destitute of precipitate. It occurred to us that this failure to react might be due to some peculiarity of the hydatid fluid, and we accordingly added to each tube 1 cc. of hydatid fluid from a different case. After standing at the room temperature for 18 hours two of the tubes containing serum from hydatid patients showed distinct precipitates. The third tube containing serum from a hydatid patient yielded only a trace of precipitate; but in this patient, as a control observation showed, the reaction was in abeyance seven weeks after operation. The remaining four tubes gave negative results, and of these, two contained serum from healthy controls, and two from doubtful cases which afterwards proved to be suppurations not traceable to a hydatid origin.

One of the most peculiar phenomena associated with the hydatid fluid that failed to react was that it failed to react with the serum of the patient from whom it was obtained; nevertheless the serum of that patient reacted strongly to the hydatid fluid obtained from a different patient. The fact that not all hydatid cysts contain fluid capable of interacting to give a precipitate with the serum of a hydatid patient may be the explanation of the negative results obtained by earlier workers at this subject.

We do not propose to discuss this anomaly at present, but we may note that both hydatid fluids above referred to (that which reacted strongly and that which failed to react) contained an approximately equal amount of albumen (about 0.025 per cent.).

What we would emphasise is (1) that hydatid fluids appear to vary greatly in their capacity for interaction with the serum of a hydatid patient, and (2) that a hydatid fluid which reacts strongly with the serum of the patient from whom it was obtained reacts also strongly with the serum of other hydatid patients. These facts are of importance in the selection of a stock hydatid fluid in the diagnostic applications of the precipitin test.

Summary of cases of hydatid invasion, all of which gave a marked precipitin reaction when tested before operation:—

1. M., 35 years.—Three small hydatid cysts, with clear contents, in peritoneum (hydatid of liver removed eight years ago).

2. M., 42 years.—Multiple hydatid cysts of liver, some of which were full of clear fluid, others shrunken and inspissated. The re-

action was very feeble six and seven weeks after operation, although not all the cysts had been removed, and the patient died in the eighth week greatly emaciated.

3. M., 8 years.—Large single cyst of liver with clear contents.

4. F., 14 years.—Multiple hydatids of peritoneum with clear fluid contents, following ruptured hydatid of liver. Marked reaction eight weeks after operation.

5. M., 13 years.—Single hydatid cyst of liver, clear fluid contents.

6. F., 17 years.—Multiple cysts of peritoneum, with clear fluid contents; dense matted adhesions.

7. M., 50 years.—Suppurating hydatid cyst in adductor muscles of thigh; well marked reaction obtained three weeks after operation.

8. M., 48 years.—Large hydatid cyst of liver, with slightly turbid contents.

9. M., 23 years.—Large hydatid cyst of liver, with slightly turbid contents.

Conclusions.—1. The interaction between selected hydatid fluids and the serum (anti-serum) of a patient affected with hydatid disease has, in our experience of nine cases, never failed to give a positive precipitin reaction.

2. Not all hydatid fluids are capable of eliciting a positive reaction, and this failure is not associated with any noticeable diminution of their protein content.

3. Persistence of a marked reaction some weeks after operation probably indicates the continued presence of the parasite; but the disappearance of the reaction does not necessarily indicate complete removal of the cysts.

4. A positive reaction is independent of the site of the hydatid cyst (hepatic, peritoneal, or muscular), and independent also of the nature of its contents (clear, turbid, or purulent).

We desire to acknowledge the courtesy and assistance of the honorary and resident staffs of the Royal Prince Alfred Hospital, and the kindness of Dr. Fiaschi in supplying us with the blood serum from the case of suppurating hydatid in the muscles of the thigh.

REFERENCE.—(1) *Compt. Rend. de la Soc. de Biol.*, tome lxi, No. 23, p. 1198, July, 1907. (2) Published in 1906 and quoted by Fleig and Lisbonne, loc. cit. (3) Welsh and Chapman, *Proc. Roy. Soc., B.* vol. 78, p. 297, 1906. (4) Welsh and Chapman (loc. cit.).

Enteric fever is reported to be very prevalent at Wellington, N.S.W., and three deaths have occurred in the last few days from the disease. The epidemic is apparently associated with the defective water supply, as few people on the east side of the railway line can obtain water at all at present.

MEDICAL MATTERS IN QUEENSLAND.

An Address delivered at the Annual Meeting of the Queensland Branch of the British Medical Association.

By Wilton Love, M.B., the retiring President.

DURING the past year I have had the honour of presiding over your deliberations, and now that the year is run it is incumbent on me to thank you very warmly for that honour and for the lenient way in which you have treated my shortcomings in the chair. Custom has regulated that the retiring president before vacating the chair shall inflict upon you a valedictory address, but it has also humanely allowed him an unfettered choice of subjects to discuss, and does not require from him any original or novel dissertation. Relying upon this indulgence, I shall deal with several matters which seem to me of importance, and I would ask you to extend your leniency yet a little further.

The report of committee regrets the paucity of attendance at the monthly meetings, and with good reason. I fear that the older members are the greatest offenders in this respect, and their absence is all the more to be deplored, as it is especially from their storehouses of experience that our discussions should be enriched. This is not fair. I think it is duty owed to the Branch and to the younger members that the seniors should keep their interest in the Branch alive by attending the meetings. With regard to the difficulty of obtaining papers, which is always a matter of concern to your secretary, it seems to me that most men dread the trouble of preparing a paper, and, consequently, following the line of least resistance, do nothing and stay away from the meetings. It should be easy, however, to show clinical cases of interest and to use them as a peg to hang the results of their experience upon. I think the difficulty of obtaining papers is largely due to the fact that comparatively few men keep records of their cases. It is a relatively easy matter to take notes of cases seen in the consulting room, but there is more difficulty in recording the notes of cases seen at their own homes. I have heard it pleaded that a man is too tired after his day's work to write up notes of cases; but it is not necessary. Where a nurse is in attendance it is well to impress upon her the necessity of noting everything of importance which has taken place during the interval of your visits, and this should be supplemented by notes of

your own examination at the time. If there is no trained nurse, it is well to leave a temperature chart at the house of your patient, on the back of which it is easy to make short notes at each visit. This is an invaluable reminder of the history and progress of the illness. Such records are priceless afterwards in the writing of papers; and I firmly believe if the practice were more systematically carried out there would be less disinclination on the part of members to contribute original papers to our meetings. I mention all this, though it is so obvious, because I know that such records are kept by very few; in fact, I have heard one well-known surgeon say that he asks for no notes of his cases, that he is content with the record of pulse and temperature. We all know Bacon's adage in his essay on Studies—"Reading maketh a full man, conference a ready man, and writing an exact man"—and this is probably more true of the study of disease than of anything else. I think the meetings of the Branch should be *par excellence* the place where clinical cases especially are considered and discussed. Monographs of special or abstruse subjects are rather for the columns of the medical press or congress transactions than for ordinary meetings, where matters which lend themselves to discussion are more valuable.

This year an innovation has been made by holding one of our ordinary meetings at the general hospital. In the absence of a university clinique here there are members who do not enter a hospital ward from year's end to year's end, and it is to these especially that such clinical evenings should appeal. I hope to see the experiment repeated.

Early summer is again with us, and the wave of gastro-enteritis among babies with it, this time in a more than usually widespread form. The more vigorous enforcement of the Infants Life Protection Act has perhaps forced more of these cases into the hospitals and their outpatients' departments, but the experience of most of us has been that this year the cases have been unusually numerous and the mortality correspondingly high. (Deaths from gastro-enteritis in metropolitan area for October and November: 1905, 16; 1906, 20; 1907, to November 30th, 67.) Three years ago last February you will remember that our then president (Dr. Byrne) read an excellent paper on the subject before us, and some well-written articles appeared in the daily press; but nothing has been done. The tale of preventable disease occurs

with appalling regularity year after year, and the advice given in Dr. Byrne's paper and in the press articles has been as the voice of one crying in the wilderness. Were this mortality to occur in cattle or sheep there would be a Parliamentary select committee appointed to inquire into the matter, and legislative action would be taken and Government assistance forthcoming. But it is only children—children, the future assets of the State's welfare, the potential citizens of the future—who are thus removed, and no heed is paid to the warning voice, and no action is taken to save the stricken multitude. The subject is as old as the hills, and excellent efforts in many parts of the world have shown the way of dealing successfully with the scourge, so that no longer can ignorance or inability be pleaded in extenuation of inaction.

From McCleary's excellent little book on "Infantile Mortality and Infant Milk Depôts" we learn that in France alone *gouttes de lait*, or milk depôts, are established in 91 towns, and in 50 towns in other European countries, in various places in the United States, Canada and South America, even in Algiers and the Canaries; but in the Australasian States, where the yearly reduction in birth-rate for the ten years 1891-1900 is actually higher than in any other country in the world, no Government or municipal efforts have been made to conserve the infant lives which from this very reason are relatively so valuable to these States. The establishment of municipal milk depôts has long since passed the experimental stage, and it has been shown that great success has attended these efforts and that the depôts have been made largely self-supporting. The initial cost of the Battersea and Leith depôts was about £150, while the Liverpool figures for 1903 show that the sale of milk defrayed about 60 per cent. of the working expenses. These depôts, as you know, supply sterilized milk in separate bottles, each bottle containing only enough for one meal and as the public get to know the advantages the demand increases rapidly year by year. It is imperative that some similar action shall be taken to introduce this very necessary reform in Australia.

I am sure the members of this Branch will regard with pleasure the success of the movement so ably originated by the Bishop of North Queensland to establish a travelling scholarship in connection with the investigation of tropical diseases, subsidised jointly by the Federal and Queensland State Govern-

ments. I trust that, other things being equal, preference will be given to Queensland students at the southern universities, and that the reports of work done may from time to time be available for the members of the Branch. Tropical medicine has of late years sprung into deserved recognition, and there are so many problems awaiting solution of vital importance to the public and to ourselves in this State, that the work will be watched with keen interest. Filariasis, anchylostomiasis, tropical anæmias, and the many and varied tropical disorders, from malaria and dengue to Barcoo rot and Belyando spew, await the application of modern research methods to place them on the necessary footing to render prophylaxis and treatment more satisfactory than they are at present.

This brings me to a subject on which I feel strongly, and although my views on the matter are fairly well known to most of you, yet at the risk of reiteration I must again emphasise the growing importance of pathology in relation to all the branches of medicine and surgery, and more particularly of surgery and surgical gynaecology. The strides of surgery since the dawn of antisepsis and asepsis have made surgical procedure infinitely more common in the daily work of the general practitioner, while the advances in gynaecology and abdominal surgery have made it an absolute necessity that the operator shall be aware of the nature and structure of the tissue he is dealing with. A surgeon who cures a case of persistent bleeding from the uterus may commit a crime by diagnosing retained products of conception when malignant disease of the endometrium is present. Naked-eye recognition of a neoplasm requires large experience coupled with the clinical history of the case for a correct diagnosis, and yet every surgeon of experience can tell you of errors in diagnosis after the most careful clinical examination of patient and tumour. Lockwood, in an excellent paper on "The Immediate Microscopical Diagnosis of Tumours during the Course of Operations," says, as regards the clinical diagnosis of tumours: "It is difficult for a clinical and pathological sceptic to treat current beliefs with due reverence. My own faith has been shattered by many errors. A small hard movable nodule in the breast of a young woman has been diagnosed *secundum artem* to be a fibro-adenoma and has proved to be a carcinoma, and I am far from being the only one who has been deceived." Many

of us can say the same, and the pathological report has been received with surprise and doubt by the operator.

Again "a hard, solid mass in the full breast of a florid, middle-aged woman was surely a carcinoma, but was in reality chronically-inflamed breast tissue with a cyst in its centre. A cyst in the mammary gland when cut into looked like a thick-walled cyst with walls of fibrous tissue. Its walls were cancer." Such a case occurred recently, and the report was demurred to until confirmed by the verdict of Professor Welsh, of Sydney University. Again, "a large adherent tumour of the breast with retraction and ulceration of the nipple and enlargement of the axillary glands was thought by many to be an inoperable carcinoma. It was tuberculosis of the breast and easily taken away. An encapsuled tumour in the breast of a middle-aged woman ought to have been innocent, to use the current phrase, but it was cancerous."

The subject of gynaecological pathology is one which illustrates well the necessity for clinical observation being checked by the microscope. The examination of uterine scrapings has become a large part of the routine work of the pathologist, and requires special experience to discern the niceties of the shading off of a hypertrophic glandular endometritis into an adeno-carcinoma. The hæmorrhage from a chorion-epithelioma may well be mistaken for that due to retained secundines, but a careful pathological report will dictate the necessary treatment, or, *mutatis mutandis*, spare the patient the risk of a hysterectomy when a curettage will be all that is necessary for cure.

Methods of precision in all departments of general practice have attained an importance to-day which cannot be ignored. The physician should be prepared to make or have made for him hæmoglobin estimations, red cell counts, leucocyte counts, qualitative and quantitative, volumetric estimations of albumen, sugar, urea, chemical and microscopic examinations of pathological fluids, and in the near future determinations of the opsonic index. The surgeon should be in possession of information as to a rising or falling leucocyte count.

In the clinical methods of modern medicine the examinations can be made by the bedside and the results be immediately available for the treatment of the case. This should also be possible in the realm of surgery and gynaecology, and I again refer with pleasure

to Mr. Lockwood's paper in the *British Medical Journal* for January, 1907, in which he strongly advocates the immediate recognition of tumours while the patient is on the operating table. I am aware that this improvement is in use in the larger metropolitan hospitals of the southern States, but with us it has not yet been possible. The importance of such immediate examination is very great, for the removal of a fragment of tumour for examination a week or ten days before report can be received and acted upon, is not so innocent a procedure as it may seem at first sight to be. I know of two cases of a suspicious tumour of the breast having been examined in this way and found malignant, with the result that about a year after the radical operation had been performed, secondary recurrence took place in the liver, while the original site of the disease remained free. The technique of the immediate examination consists in freezing the fragment of tissue with ether, ethyl chloride, or carbonic anhydride, rapid cutting of section, rapid staining with methylene blue, and immediate examination. The whole proceeding need not take more than ten minutes, during which time the anæsthesia need only be lightly maintained. Further confirmation may be obtained by subsequent fixation and preparation of the tissue by the paraffin method. I hope that we shall soon have a demonstration of this method by Dr. Jack Thomson, who has had experience of it at Sydney Hospital.

Intermediate between the immediate examination as above described and the ordinary slow method of hardening and embedding in paraffin is a method which has been of much use to me during the past year. I refer to *Henke & Zeller's method of rapid hardening and fixation by means of acetone, and rapid embedding in paraffin—the whole procedure occupying about three hours instead of eight days by the older method. This has proved very useful for tissues where an urgent report is required, the only essentials being that the tissue be cut into small enough dice to be readily permeated by the acetone and paraffin, and that the acetone must be absolute; the latter may be secured by occasional re-distillation or by keeping fused copper sulphate in the liquid.

The time and the necessary skill in technique for these procedures are not at the disposal of every operating surgeon or practising physician. Consequently some means *must*

be found in the interests of the patient as well as of the medical attendant by which an examination and report can be made. In cities where there are medical schools this naturally falls to the lot of the pathological departments, or, as in England and the United States, to special institutions, such as the Clinical Research Association, or to laboratories controlled by boards of health in conjunction with bacteriological work—a small fee being usually payable for the service. In Brisbane we have had the technique of the section cutting and staining carried out by the Bacteriological Institute, and the microscopic examination and report by a honorary pathologist, who has in cases of doubt had the courteous and valued assistance of the pathologists of the southern universities. That the work has met a want is evidenced by the rapidly growing volume of material coming in from private practitioners and from hospitals—in 1901, 74; 1902, 66; 1903, 93; 1904, 100; 1905, 87; 1906, 140; and 1907 to date, 168—contributed by almost every hospital in Queensland and by nearly 100 private practitioners, even from as far afield as New Guinea.

Still the position is not entirely satisfactory. A pathologist should have the opportunity of conducting autopsies and should have the assistance of the clinical records of cases to do his best work, and it is evident that this is not often possible in a medical community where each individual member is engaged in general practice. It would be a great boon to the profession and through it to the public to possess some reliable means for dealing adequately with this clinical and pathological want. The research required for these services must of necessity demand the training of a medical man. As you will all remember, a deputation waited recently upon the Home Secretary urging the appointment of a medical man whose services should be available for the hospitals and the profession, and it is to be regretted that the success of the request should have been discounted by the want of unanimity on the part of those who spoke.

I still think the proposal the best to meet the difficulty. The holder of the post should receive a Government salary and have the right of private practice—private pathological practice if not general private practice. There are many ways in which his salary could be saved in part at least to the Treasury, *e.g.*, he could conduct the Government post-mortems, do the pathological work of the Police

* Schmorl's untersuchungsmethoden, 1905, p. 288.

Department, etc. A fee should be chargeable to medical men who require his services, and in this way a fair income could be realised by a competent man.

I hope when political affairs are a little more settled that this matter will be again brought forward.

And now, gentlemen, I have wearied your patience sufficiently by this patchwork address, and I thank you for your patience in listening to me. The subjects touched upon are, I hope, in the direction of progress, and I would prefer to look ahead rather than cast a retrospective glance. The rôle of the British Medical Association and of its individual branches is a most responsible one, and I believe that it will be through its machinery that the profession will be best able to bring about reforms. The force of impact of any body is directly proportional to its mass and its momentum, which rendered into non-mathematical language means that the Association will succeed best in its efforts first by the inclusion of all possible practitioners in its ranks, and secondly by the activity of its members.

ACUTE PANCREATITIS.—LAPAROTOMY.—RECOVERY.

By Frank S. Hone, B.A., M.B., Ch.B.,
Semaphore (S.A.)

THE following are the notes of the case:—Miss L. H., æt. 24 years, a strong, well-built German woman, engaged in domestic service, consulted me on May 27th last for more or less constant headache. She had always been perfectly strong and healthy, except for four months' illness when 17 years old, through absence of menses for some time. Since the beginning of the year she had noticed that she occasionally vomited directly after meals, and sometimes had nausea without vomiting, but never any pain after food. For the last month she had had constant vertical headache, worse on bending; and a pain in the chest which was worse after meals; no other symptoms of dyspepsia; no vomiting since this pain came on; no constipation. I could find no evidence of organic disease on examination. I ascribed her headache to faulty digestion, and gave her an alkali and cascara.

At 5 a.m. on June 19th I was sent for, owing to an acute attack of pain. I then learnt that she had been just about the same till the previous night. She had had two heavy meat meals on that day, had felt giddy

in the evening, and gone to bed early. She slept well till 11 p.m., when she woke with dreadful epigastric pain, for which she took a packet of Epsom salts and brandy. She vomited undigested food three times after this, then felt easier and slept till 4 a.m., when the pain woke her up again and kept her awake in spite of hot fomentations, brandy, and other home remedies. When I saw her at 5 a.m. she was throwing herself about in the bed with the paroxysms of pain. The bowels had acted naturally; temperature was 98, pulse 72; there was slight tenderness in epigastrium, but no great rigidity and no sign of collapse. In fact it was for all the world like a very severe attack of intestinal colic, only the pain was too high up, being always referred to the epigastrium. A quarter of a grain of morphia hypodermically injected relieved the pain, and she remained fairly comfortable till I saw her again at 10 a.m. She then looked and felt much better, and pulse was 84. I remarked on the absence of rigidity of the abdominal muscles, so that even in the epigastrium one could press fairly well in. There was still tenderness here, but no other abnormality. From the patient's appearance, and what one could find, there did not seem much reason to fear anything serious, but somehow I did not feel satisfied, and fortunately secured her consent to be moved into an adjoining private hospital and be watched. She vomited again at 2 p.m. and 10 p.m., still bringing up undigested meat, this last time some 28 hours after her last meal. When I saw her again at 10 p.m. the bowels had acted with enema, although she had had hyd. subchlor. gr. 5 early in the morning, and mag. carb. regularly after; temperature 98, pulse 100, and respiration 35 and shallow, with some fulness and tenderness in epigastrium, and a worried look on her face (from headache), but no increase of pain. By this time I was convinced the case was something out of the ordinary. Any ordinary gastric affection, gallstones and appendicitis, could be put out of court. Pancreatitis I thought of, but excluded owing to the absence of temperature by the evening, as I was not then aware of the comparative frequency of low temperature in this affection. There did not seem enough collapse for a rupture of a gastric ulcer or any other hollow viscus.

She required morphia during the night on account of pain, and by next morning the epigastric distension was most marked; she looked anxious and worse in every way, and pulse was up to 120. The peculiar way in

due probably to dragging of adhesions from right side.

One symptom noticed by some observers is a lividity of the skin. Moynihan says that in two out of his three cases this was very marked. I did not observe this in the acute attack, but though I had not then seen it mentioned, both the nurses and myself remarked on the peculiar blueness of the patient during the secondary febrile stage.

This is, I think, the first case of recovery from acute pancreatitis reported in this State. Dr. Benham and Drs. Martin and Wigg have each reported a fatal case, the former, like this one, in a girl of 24, in which the disease was found post-mortem to be associated with gallstones; the latter's case followed an injury. Dr. Mitchell, of Ballarat, has also reported a fatal case, and in last month's *Intercolonial Medical Journal*, notes of a fourth case were given by Dr. Stirling.

These cases show that the disease is not the absolute rarity we were once led to believe. It is certainly one of the most serious conditions one is called upon to deal with, both from its suddenness of onset, its vagueness of symptoms, and its almost invariable fatal result unless surgically treated. I was fortunate in seeing my case early, and in having a patient who was of exceptionally strong physique, so that she withstood both the immediate shock and the secondary wasting.

It is usual to describe three varieties of acute pancreatitis—the gangrenous, hæmorrhagic, and the suppurative; but as one reads the descriptions by different authors, one is struck by the fact that these descriptions all seem to be borrowed from Fitz's original account of the disease in 1889. There is a slavish imitation in these descriptions that reminds one of the arithmetic books of one's school days, where there were always examples of the kind of sum one could do, but never any of the kind one could not do. There has been a great deal of controversy of late years regarding the hæmorrhagic variety, as to whether the hæmorrhage found post-mortem in these cases was the antecedent of the inflammation or the reverse. The former has been supposed to be the case from the property which a disordered pancreas seems to possess of setting up a hæmorrhagic condition generally.

Experiments have proved, however, that the injection of blood into the pancreas does not set up an acute pancreatitis, and there now seems little doubt but that the hæmorrhage is in most cases secondary to the

inflammation; in fact we have an acute inflammation of this organ, just as we have of other organs, but the pancreas being exceptionally vascular, there is a special tendency to hæmorrhage from the organ when it is acutely inflamed. So again, if the inflammation is very acute, and the tension is not relieved, necrosis of part or the whole of the organ may result, giving us the so-called gangrenous variety.

In post-mortems of patients dying in the acute stage, one or the other of these conditions would be found, whereas if the patient were fortunate enough to survive the shock of onset, the areas of fat necrosis—which are really saponified fat—or of necrosed pancreas, would almost certainly result in suppuration. The present case, for instance, would have been called the hæmorrhagic variety in the acute stage, for even after relief by laparotomy, almost pure blood escaped from the tube for a day or two, whereas had she by any chance tided over that stage, suppuration would almost certainly have resulted later. As cases are recognised earlier, I think the old classification will fall through, and that these three so-called forms of acute inflammation will be recognised as simply different stages of the same process.

It will be noticed that our case bears out once more the truth of Fitz's dictum in his original article on the subject: "Acute pancreatitis is to be suspected when a previously healthy person, or sufferer from occasional attacks of indigestion, is suddenly seized with violent pains in the epigastrium, followed by vomiting and collapse, and in the course of 24 hours by a circumscribed epigastric swelling, tympanitic or resistant, with slight rise of temperature." It will be noticed, too, that our experience coincides with Moynihan's remark: "In many cases operation will be undertaken without a positive diagnosis having been made. The surgeon will feel that some acute catastrophe has occurred in the abdomen, and that in operation alone lies the hope of relief." From the nature of the initial symptoms this must often be the case; still, where the symptoms are fairly well defined, as in our case, one ought occasionally to be able to make the diagnosis. In order to do so one must keep one's mind fixed on Fitz's dictum to the exclusion of lesser points. For although I had been on the lookout for a case for the last three years, I put the matter out of my mind in this case, owing to the age of

the patient and the absence of temperature. The books make so much of patients being chiefly stout, middle-aged men, with an alcoholic history, that one is disposed to make too much of the age factor when a case presents itself. Naturally from its association with gallstones, the disease is more likely to be met with at the age when gallstones are most prevalent; but it may occur at any age. This case and Dr. Benham's were in girls of 24; and McPhedran reports a case in an infant nine months old, where the symptoms during life were those of an acute pancreatitis, which was verified by a post-mortem examination.

It is well, too, to remember that absence of any febrile temperature is a recognised feature in a certain proportion of cases, so that one might even leave out the last clause of Fitz's statement, and fix one's eyes on the rest. At any rate in thinking of a ruptured duodenal ulcer we were erring in good company, as Moynihan says that in one of his three cases a diagnosis of acute pancreatitis was made; in the other two a diagnosis of perforated ulcer of the stomach or duodenum.

The chief thing I regret in the treatment of the case is that we did not open the gall-bladder at the operation. Dr. Cudmore spoke of doing it, before we discovered the real source of trouble; afterwards our attention was diverted from it to the pancreas, and, to be perfectly frank, while I knew of the general association of acute pancreatitis with gallstones, I was not aware of the comparatively good results that had followed operative procedures when a cholecystotomy was combined with drainage of the lesser sac of the peritoneum.

As it is, our omission in this case may still serve a useful purpose, in that it emphasises the fact that while cholecystotomy may be the ideal treatment, yet if this is impracticable, from the state of the patient or any other reason, simple drainage of the peritoneum gives the patient a chance of recovery. Osler and others have already reported cases where an exploratory laparotomy has proved the presence of pancreatitis, and been followed by recovery.

Moynihan advises puncture by incision of the inflamed pancreas to relieve tension. Theoretically, this course appears to me to be open to two objections. Firstly, in all interference with the pancreas there is the risk of severe hæmorrhage, which is often difficult to control by ligature. This actually

occurred in Muspratt and Ramsay's case, who were the first to adopt this mode of procedure. They made an incision into the head of the pancreas, and state that it was followed by hæmorrhage, which was for some time distinctly alarming. It could, however, be controlled by pressure, and was eventually completely arrested by artery forceps and a ligature. Secondly, incision or puncture of the inflamed gland must at once liberate fresh supplies of pancreatic secretion into the peritoneal cavity. Now the damage already existent outside the pancreas is due to ferments that have already escaped. Mikulicz has pointed out that the secretion from the inflamed pancreas is capable of causing in itself a variety of aseptic peritonitis. The areas of so-called fat necrosis are really saponified fat, from the action of the pancreatic secretion on the fat cells, and the glycerine set free in this process is said by Mayo Robson to be the cause of the special tendency to hæmorrhage. One would think then that to liberate fresh supplies of this secretion would be to add to the trouble, and so still further digest any adhesions that are in process of formation—on the formation of which we depend for the limitation of the peritonitis. Consequently if this procedure were adopted, it would seem necessary to firmly pack with gauze to check hæmorrhage, and at the same time take very special measures for very free drainage. For this purpose a second incision is suggested behind, in the left costo-verbal angle, through which a tube is run up to the neighbourhood of the pancreas.

Mikulicz's paper of 1903 quotes 75 cases of operation for acute pancreatitis. Of 37 in which the pancreas was involved in the operative interference, 25 recovered; in 41 in which the pancreas was not touched, four cases recovered, and in all of these free peritoneal drainage was established.

Better than this it seems to me is Mayo Robson's plan of draining by a cholecystotomy, if the condition of the patient will allow it. I have referred to the close association of pancreatitis with cholelithiasis, and the more numerous the cases described the more striking becomes this connection. It is not that the proportion of gallstone cases developing acute pancreatitis is large; Mayo Robson says that out of 1500 cases of gallstones, in only 86 was the pancreas sufficiently involved to be noticeable on examination, and only four of these cases were acute, while there were six subacute, nine cancer, sixty-seven chronic pancreatitis. ■

But excluding those cases of acute pancreatitis following a week or ten days after an abdominal injury, one finds that the great majority of cases of acute pancreatitis show an antecedent cholelithiasis to be present. In what way the latter condition predisposes to the former is still a matter of dispute. It has been proved that the injection into the pancreas of olive oil, formalin and other substances, besides suspensions of pathogenic bacteria, are capable of producing in the dog severe inflammation of the gland. It has also been proved that perversion of normal secretions, such as bile and gastric juice, whereby they enter the pancreas, were sufficient causes of pancreatitis. Opie would put down the back flow of bile as the cause in these cases, because the injection of bile in the pancreatic duct was followed in every case by acute pancreatitis, and because out of 39 cases associated with gallstones, in eight the stone was in the ampulla of Vater, and in one it was impacted at the orifice of the biliary papilla, being too small to occlude the pancreatic duct, and yet too large to pass into the duodenum. In this case the pancreatic duct was deeply bile-stained, and the gland inflamed. Here then the bile and pancreatic ducts were converted into a common channel, with direct evidence of the back flow of bile. But for this to be able to occur, demands a small gallstone together with certain anatomical peculiarities, which only occur in one out of every three individuals. Opie would say that this explained the rarity of the condition, but it does not explain it in the 21 cases out of 39, where no stone was lodged at the orifice of the duct, or in the minority of cases where no stone occurs at all.

It seems more probable that the presence of gallstones sets up a catarrh of bile ducts, which may easily extend to the duodenum and pancreatic ducts, and by lowering of vitality predispose to an inflammatory state of the gland. In this connection it is interesting to note that Egdahl, in an analysis of 105 cases of acute pancreatitis, says that the organism most commonly found was the *B. coli communis*, which we know is so often associated also with the starting of cholelithiasis. If this really be a septic process extending directly or indirectly from the gall-bladder, drainage of the gall-bladder is the rational method of relieving tension, as well as preventing a recurrence of the trouble. And in most cases to open the gall-bladder and drain would entail very little more endurance on the part of the patient than

incision of the pancreas, with a possible difficulty of checking hæmorrhage, and then a counter opening in the loin.

The exact course followed does not seem to be of so much importance as early operation. It stands to reason that if the case is left till considerable areas of fat necrosis have formed, there is not much chance of recovery, more especially if Hesse's conjecture be right that the cause of death in these cases is possibly poisoning by soap.

At the time of seeing my case I had the impression that they were almost invariably fatal, as they undoubtedly are if left alone. Mayo Robson in 1904 said that of six cases he had seen, four were operated on and two recovered, while the two not operated on both died. Up to that time, of 59 reported cases of operation during the acute stage, 23 recovered. These figures should be still improved on with earlier diagnosis and less delay in exploratory laparotomy.

(Read before the South Australian Branch of the British Medical Association.)

SOME OBSERVATIONS ON HIGH BLOOD PRESSURE.

By Arthur E. Mills, M.B., Hon. Assistant Physician,
Royal Prince Alfred Hospital, Medical Tutor
Sydney University, Sydney.

THE remarks I have to make to-night are based upon observations of blood pressure made upon patients during the ordinary routine of a busy practice. The observations were taken with Martin's modification of Riva Rocci's instrument, which I bring before you this evening. I know that many of you are interested in the problems connected with high blood pressure, and my object in dealing even in what I may call a cursory fashion with this subject is that we may all have the benefit of the experience of other observers.

I would first remark that without instrumental aid one cannot properly appreciate even marked differences in blood pressure. No matter how delicate one's touch may be, or how educated one's fingers may be, if one trusts to his fingers alone he will fall into grievous errors. I have been surprised to find what mistakes I made when I attempted after carefully examining the pulse to express in figures the height of blood pressure in a patient, and then compared that estimate with the estimation as revealed by this instrument. In matters of blood pressure the

finger is not an instrument of precision, whereas the hæmodynamometer is. One can as a rule say the blood pressure is high in a certain case by simply examining the pulse with the finger, but to say how high it is is quite another matter. In my own work scarcely a day passes without bringing this instrument into use. Frequently I make use of it three or four times a day. As a result I have been surprised to find what a number of people have an increased blood pressure. Were I to venture to speak in general terms I would say that as a rule in the obese the blood pressure is high, but the converse does not hold good. Further, that heredity plays a big part. Upon inquiry as to the cause of death of the parents of a patient with high blood pressure I have been surprised to learn how frequently the answer has been that one of the parents had died as the result of a paralytic stroke, which, I think, is evidence in the majority of cases of a pre-existing high blood pressure.

Again, in many instances inquiry proves quite futile as to the cause of this condition. Many people with high blood pressure have led blameless and, as far as alcohol is concerned, temperate lives. It is very difficult to say if they have been equally temperate in the matter of food, especially nitrogenous food. If the physician suggests that the patient eats too much, he at once encounters resentment. Especially is this the case in female patients who are falling into flesh; but the suggestion is true, nevertheless. For if people lay on fat in excess, it surely means that they are eating more than is necessary to repair waste and more than is necessary to provide for their everyday work. Such an increase in the intake of food must lead to increased metabolism, to increased waste products, to the excretion of these, and possibly, if not probably, to their partial retention. This is the one fairly constant factor and probably the causative factor in the genesis and maintenance of arterio-sclerosis and its accompanying high blood pressure.

Such, however, are mere generalisations, but still they lead us on to a means of treatment which may often help those suffering from increased blood pressure.

I propose now to briefly touch upon the following questions:—

1. High blood pressure in relation to the heart and respiration.

2. High blood pressure and its relation to the arterio-sclerotic or granular kidney.

3. The effects of diet in cases of high blood pressure.

4. The effects of some drugs in cases of high blood pressure.

With regard to the first question. Patients as a rule complain first of breathlessness on exertion, but I have had not a few whose first complaint was palpitation, with pain or distress felt in the precordial region. On examination of these cases the blood pressure may lie between 160 and 250 m.m. The heart is found to be beating strongly, with marked accentuation of both sounds. The heart is evidently hypertrophied; there may or may not be evidence of dilatation. But I have observed in many other patients who consulted me for troubles altogether unrelated to their heart or their blood pressure a pressure of 160-170-180 m.m., and who were quite free from any cardiac or respiratory symptoms. It is all, however, as far as I have observed, a question of time. Sooner or later the increased work put upon the heart—i.e., the battling of the heart against this high pressure—shows itself to the patient in respiratory distress on exertion, or throbbing and palpitation, without apparent cause, and to the physician by signs of cardiac failure. Now, I have many observations which go to show that despite a failing heart—a markedly failing heart—the evidences of which were big œdematous legs, enlarged liver, outwardly displaced apex beat—marked increase of cardiac dulness and pulmonary œdema, the increased blood pressure amounting to in one case 180 m.m. or more, in another 200-220 m.m., and in yet another 190 to 200 m.m. was maintained for weeks and weeks, and only gradually diminished a little while before death. To me it was surprising that with such failing hearts the pressure was maintained. I have, on the other hand, noted that in these cases as the pressure began to diminish, so they got nearer and nearer to the end of their days. Such observations only show how wonderful is the power of the heart to accommodate itself to adverse conditions. So far I have only been dealing with cases of high blood pressure and its relation to hearts without evidence of primary valvular lesion. In cases of heart failure resulting from old valvular defects from previous endocarditis my observations go to show that along with a hypertrophied heart we get an increase of blood pressure—not to such an extent as is met with in cases of purely arterio-sclerosis.

At first sight this is not what one would expect, but the increase of systolic pressure is after all only one phase of the subject, and that is all I have with this instrument the means of estimating. I have no doubt that in such cases we would find a very low diastolic pressure, so that I become more inclined to the belief that a record of diastolic pressure is of almost as great importance as the record of systolic pressure. With regard to high blood pressure and the respiration I have observed over and over again that in cases of arterio-sclerosis and granular kidney where one frequently observes asthmatic attacks, and not seldom attacks of acute pulmonary oedema, the systolic pressure under such conditions of respiratory disturbance is always raised 20 or 30 or 40 m.m. above the usual blood pressure. So soon as the blood pressure can be lowered, so soon does the respiratory distress cease. I was fortunate in having two patients under my care at the same time with arterio-sclerosis and granular kidney and markedly failing heart. Each of them suffered at times from attacks of respiratory distress—the one from asthmatic attacks with much dyspnoea and cyanosis, the other from acute pulmonary oedema with expectoration of profuse blood-stained, frothy and watery fluid. I saw both of these cases in many of their respiratory troubles, and in nearly all I registered the blood pressure. In the one, whose pressure was generally between 175-184, I observed on one occasion during his respiratory distress, acute pulmonary oedema, a pressure of 220 m.m.; on another 210, and so on. In the other patient, whose blood pressure varied from 170-180, and whose attacks were not quite so distressing, the pressure rose to 200. I verified these observations on several occasions. I was led from such results to investigate the blood pressure in patients with ordinary spasmodic bronchial asthma. Here a dearth of patients of this type prevented me from bringing any reliable results before you. I only observed one case. She came to consult me. When she came into my room she was wheezing loudly and breathing with difficulty. Her blood pressure was 175. After she had rested and the acuteness of her attack had passed away the blood pressure registered 150 m.m. In another case of bronchial asthma I had the pressure taken, but the results were practically negative. Here, however, the observations were made by unskilled attendants.

2.—I come now to the question of high blood pressure and its relation to the arterio-sclerotic kidney or granular kidney. This question has always been of much interest to me, and judging by the amount of discussion upon it, to numbers of others. The whole matter, to my mind, is to determine if possible which is the primary factor at work. It appears to me it would simplify matters much if one could prove that arterio-sclerosis (and by that term I understand the general widespread thickening of the arterial coats, not the calcification of the arteries, converting them into rigid tubes, seen in the aged, nor the patchy atheromatous changes so common in the aorta as well as other arteries) was the initial factor. The kidney condition, with its thickened vessels, would be a part of the arterio-sclerosis. The nutritional and degenerative changes in its epithelial structures would be the result of the renal vascular changes. The hypertrophied heart would be the response to the demand for increased power to drive the blood through the narrowed thickened vessels, and so the picture could easily be completed. Let me, even at the expense of wearying you with the presentment, as a trite example—give you a concrete case. A patient, 45 or 50, is admitted to hospital with big legs and oedema of his skin generally, with a big liver, and a big heart which shows signs both of dilatation and hypertrophy, with oedema of his lungs, and marked respiratory distress. His blood pressure is 180 m.m.; arteries thickened. His urine is 1015, scanty, a definite measurable amount of albumen, some hyaline and granular casts. His fundus shows a few small hæmorrhages. After resting and general hygienic treatment he improves; he loses in part or in whole his big legs, his liver reduces, his lungs admit air more freely, his heart loses its dilatation, the urine increases, becomes less dense, the albumen diminishes, but still persists in small amount. The high blood pressure is maintained. He leaves hospital; later he is brought in again in convulsions and dies. Then in such a case a diagnosis of granular kidney, cardiac hypertrophy, etc., would be made by the majority. Such a diagnosis would take little account of the general arterio-sclerosis, and would attribute the beginning of things and the end of things to the kidneys.

The observations I have made on many cases suggest to me that long before we have any evidence of renal disease as revealed by the presence of albumen, or marked lowering

of the specific gravity, or marked increase in its amount, or alteration in the output of urine, we can and do have arterio-sclerosis, recognisable either by the sphygmometer or by the cardiac condition of hypertrophy, ringing second sound, and the thickened arteries. Long before we have any evidence of renal disease we may have hæmorrhages into the retina, as I have myself seen. One such case was sent me by Dr. Pockley about five years ago, who was consulted for dimness of vision in one eye; he found hæmorrhages in that eye. Yet that patient had absolutely no sign of renal disturbance, although I examined her urine about that time on several occasions. Her heart was hypertrophied and her arteries thickened; her pulse tension high. Now listen to the sequel. I saw her some months ago, with a slight weakness of the left arm and leg; her blood pressure was 178; her urine showed a definite cloud of albumen; heart hypertrophied, arteries thickened; some fresh hæmorrhages into the fundus, and whitish patches to indicate the position of the old ones.

Another patient, who has quite recently died, was seized with sudden blindness in one eye about ten years ago. He was taken to Dr. Pockley, who found a detached retina. His urine was repeatedly examined then by Dr. Jenkins, and at intervals for a long time afterwards, and never showed evidence of renal disease. Although Dr. Jenkins found him with a high tension pulse, and accentuated second sound to thickened arteries. I saw him first some five months ago. He then had slight œdema of the legs and dilatation and hypertrophy of heart. His blood pressure was 198 m.m.; a definite and persistent amount of albumen. His blood pressure was reduced to 184, but could not be kept much lower. He developed attacks of pulmonary œdema, marked Cheyne Stokes' breathing, epistaxis, etc., and gradually died.

I have now under my care an old gentleman whom I first saw some eight or nine years ago for some slight dyspeptic symptoms. He had then a markedly high tension pulse, thickened arteries, some hypertrophy of his left ventricle, and marked accentuation of his second sound. I was so struck with his high vascular tension and his cardiac condition that I fully expected to find evidence of renal disorder; but neither then nor many times subsequently could I discover any trace of renal disease, nor had he any renal symptoms. This man maintained good health and did his work, manag-

ing a large commercial business, until about a year ago. I saw him again then because he had had a fainting attack. His heart was now dilated as well as hypertrophied; he had some œdema of his legs; a definite amount of albumen, with sp. gravity 1010; his blood pressure was 220 m.m., which has persisted with slight variation until the present. He has recently had attacks of profuse epistaxis, of marked dyspnoea, long periods of Cheyne Stokes' breathing, and other uræmic conditions, which betoken his approaching death.

In passing, I may mention that this old gentleman has two daughters. The elder has a normal blood pressure; the younger, *æt.* 35, has a pressure of 160 m.m. Both are in excellent health; there are no signs of any renal affection. The elder sister tells me that the younger has always had a most hearty appetite and has eaten much more freely than she has.

I could mention other similar cases, but why weary you. I want now to give you the other side of the picture. I have made many observations on people who are still free from any signs of kidney mischief, whose blood pressure is very high, and who show all the signs of arterio-sclerosis.

One lady, 57, had a pressure of 174 m.m., another, 48, a pressure varying from 190 to 200; another, 52, has a pressure of 250 m.m. None of these show any signs of renal disturbance; they are all on the fat side, and their only trouble is respiratory distress on exertion. I do not doubt that in these cases, if I have the opportunity, I will later on discover signs of kidney mischief, and provided there be no intercurrent disease to upset one's calculations, I think I can predict the course these cases will run.

I think I have brought some evidence to suggest, even if I use no stronger word, that arterio-sclerosis is the causal factor at work in these cases, that it produces the gradual interstitial change in the kidneys which later on become so altered and depraved that they give evidence of their functional and structural degeneration. Then, and then only, on clinical grounds can we say we have a granular kidney, but shall we say that then and then only has this condition suddenly arisen? On the contrary, we must assume that it has come on gradually and insidiously, and only in its later and more complete stages does it reveal itself.

The third question that I propose briefly to touch upon is the effect of diet on cases of high blood pressure. Here I have been

very disappointed in my attempts to influence the increased blood pressure. I first tried in many of my cases with a pressure of 160 or over, cutting off all nitrogenous foods, and even reducing milk to a small amount, without any effect at all. I have tried in several cases the effect of reducing the food to a minimum. I give you the diet in detail in one case, which was faithfully adhered to for about five weeks. It was in the case of a stout lady, about 47 years of age:—Breakfast: Half slice toast, cup of tea. Lunch: Half round bread, small piece of cheese, cup of tea. Dinner: Two tablespoonfuls of vegetables, a little rice or fruit or milk pudding, and a cup of tea. The pressure was taken at the end of each week. At first week it was 190 m.m., second week it was 196 m.m., third week it was 198 m.m., fourth week it was 200 m.m., fifth week it was 198 m.m. In this case there were absolutely no signs of urinary trouble; a specific gravity which varied from 1015 to 1020; no trace of albumen. I estimated her urea excretion, and measured the amount of urine passed. From her urea excretion I estimated the output of nitrogen, and found that whereas it was normal at the beginning of the experiment, i.e., about 15 gr. daily, during the experiment and at the end of it her nitrogen output was only 5 gr. You will not be surprised to learn that she lost weight considerably. At the beginning of the investigation she was 12 stone; at the end she weighed only 10 stone 9 lb., showing a loss of 19 lb. in five weeks. You will notice, too, that if anything, her pressure increased during the investigation from 190 to 200 m.m. Despite the maintenance of her blood pressure, despite her loss in weight, she expressed herself as feeling better and able to walk with less distress than before. I adopted the same plan in five other patients whose pressures ranged from 184 to 230. In all the others I noticed after a rigid diet had been adhered to for a few days a fall of pressure of 10 or 15 or even 20 m.m., but it was only a transient fall, for it rose again and the original pressure was again maintained. With such results I can only conclude that alteration in diet in cases where evidently the high pressure has been long maintained, and where arterio-sclerosis is evidently well established, has no or very little effect at all. I believe, on the other hand, that if one could get patients in the earlier stages of arterio-sclerosis a great deal could be done by diet. My observations are yet too few from which to draw any con-

clusions. I bring before you two cases, both women and both short and fat. The first was 39 years of age, with a mild bronchitis; no other disorder. Her pressure was at first visit 184 m.m., her weight 12 st. 4 lb. After dieting, i.e., diminishing the total amount of food and abstaining from animal foods for a fortnight, her weight was 12 st. 1 lb., her blood pressure 162. Her bronchitis rapidly disappeared, and she expressed herself as vastly improved; could walk and work with much greater comfort. The other, a lady of 59, whom I had seen some years ago (long before I had a sphygmomanometer), and in whom I had then recognised a high tension pulse with marked accentuation of second sound, consulted me in June last. She had left my district for the North Shore line, where she had increased in weight. Her complaint was distress in the precordia, with dyspnoea on walking up an incline. I took her blood pressure; it was 174 m.m. Her weight was 12 st. 2 lb. She diminished the total amount of food and abstained from animal foods, but not altogether, for she had a little meat once a day. At the end of 11 weeks I saw her again. Her weight was then 11 st. 4 lb., her blood pressure 156 m.m., showing a loss in weight of 12 lb. and a diminution in pressure of 18 m.m., Hg. She was very pleased with her condition; felt wonderfully improved in every way. Her precordial distress had disappeared and her breathing was much easier. She could walk up inclines now where previously walking had caused much dyspnoea. These are just examples of what I feel sure could be accomplished, only in a more pronounced degree, if one could only get such patients early in their degenerative course.

Since I wrote the above I've had another opportunity of examining the lady whose case I presented in some detail. I saw her only last evening, just two months after I had made my last record of her blood pressure, which was 198. She has adhered faithfully to a moderate diet, eating much less than she formerly did, taking a little meat only once a day. I took her blood pressure, and to my surprise and pleasure found it only 166—a fall of 32 m.m. She had gained only 1 lb. in weight and felt wonderfully better. The only factor at work in producing such a vast improvement was the modified and comparatively low diet, so that I have to modify my conclusions. It appears that the fall of pressure is a gradual one in these cases, and

while no improvement appeared during the five weeks I had her under observation, yet during eight weeks afterwards, with a more liberal diet, not at starvation point, the pressure came gradually down and down, as I have indicated, showing that in apparently long-established cases a reduction is possible. Could it be that with the rapid loss of weight the products of her tissue destruction acted the same part which an undue amount of food does in maintaining a high blood pressure?

With regard to the effect of some drugs on increased blood pressure, I must express myself as profoundly disappointed. I have tried most of the drugs which have a reputed action for permanently lowering blood pressure, but I must confess that in my hands they have not given me the results I expected.

Perhaps iod. of potassium is one of the most vaunted remedies. I read the following in the Text-book of Pharmacology and Therapeutics, edited by Hale White:—"For the arrest of arterio-sclerosis and degenerative changes occurring in the kidneys in chronic Bright's disease, some believe that no remedy is so useful as iodine." And in another paragraph the same writer, speaking of the virtues of potassium iodide, says K.I. is combined with absolute rest in bed and a restricted diet, so as to relieve plethora and reduce arterial tension, etc. So far as my observations go, potas. iodide given in cases of high blood pressure with the object of lowering that pressure is useless. I have certainly not employed it in heroic doses, but up to 10 grs. six times a day. This, I think, is giving the drug a fair trial.

The nitrites, as we all know, reduce arterial tension and lower blood pressure with rapidity. Unfortunately though, their action is very transient, and to relieve a permanent condition of high blood pressure they have been practically worthless in my hands. I have given liq. trinitri i in doses up to 30 minims in the 24 hours, but I could not satisfy myself they were of any definite value to the patient in relieving his blood pressure.

In the few cases that I have used erythrol tetranitrate I have found the intense headache caused by the drug to be a great bar to its use.

My friend, Dr. Chapman, suggested to me the possible use of large doses of acetate of potash, $\frac{1}{2}$ dr. to 1 dr. every four hours, with a view to flushing out any waste products. I could not, however, detect any fall in blood pressure following its use. Nor did large

doses of acetate of ammonia dr. 4 with dr. 2 of spirits of nitrous æther, given every four hours, have any appreciable effect.

The one drug which certainly does diminish arterial tension, and whose effects are continued for hours, is opium, preferably its alkaloid morphia. I have made many observations on several people with high blood pressure, and I have found the effect produced practically the same in all, viz., a rapid fall of blood pressure, which has continued for 12 hours or longer. Let me give you examples of its effects taken on two different people, both suffering from marked arterio-sclerosis, with granular kidney, and on whom the same good effect was noticed after each administration of the drug.

I saw an old gentleman of 67 in a most pronounced attack of acute pulmonary oedema. He was sitting up gasping for breath, livid, and expectorating bloody, watery and frothy fluid every few seconds. I took his blood pressure; it was 220 m.m. I gave him straightway $\frac{1}{2}$ gr. morphia, and in 15 minutes $\frac{1}{2}$; in another 15 minutes $\frac{1}{2}$ again. Within ten minutes his blood pressure fell to 210 m.m.; in another five minutes it was 200 m.m.; and it continued to fall until within half-an-hour it had reached 184 m.m. Within an hour it had fallen to 178 m.m.Hg., a total fall of 42 m.m. Hg. as the result of $\frac{1}{2}$ gr. of morphia. As soon as the pressure got below 200 his breathing became, noticeably easier, and his expectoration diminished; but it was not till his pressure had reached between 180 and 190 that he expressed himself as decidedly better. When I left him, after observing him for an hour or more, taking his pressure at intervals, he was breathing quite comfortably, and the attack had completely passed away. Next morning the pressure was still below 180, although his usual blood pressure, as I found from subsequent observations, was always between 180 and 190 m.m. I had numerous opportunities of observing this old gentleman's blood pressure and the effect of morphia or heroin upon it. The effect was always to cause a decided reduction.

In the case of an old lady, who was 62 years of age, and had marked arterio-sclerosis and granular kidney, with attacks of dyspnoea of an asthmatic attack, I had similar results. On several occasions during these attacks her blood pressure registered from 190 to 200. Within a quarter to half an-hour after the injection of $\frac{1}{2}$ gr. of heroin the pressure fell to 166 to 170 m.m., with rapid relief to the

dyspnoea and to the poor, overburdened labouring heart. I need not recite other instances. I need only remark that in arterio-sclerotic cases where the usual pressure from any cause is increased, morphia or heroin always relieves the increased blood pressure, and by that means affords relief to the immediate symptoms, such as wheezing, dyspnoea, lividity, cough, and expectoration.

The change it produces in the skin of the face and hands is most marked. The livid hue of the skin gives place to a marked flush, which at once suggests that the cause of the fall is due, in part at any rate, to dilatation of the superficial vessels.

Despite these results I read the following in Hale White's Pharmacology in an article written by Stockman:—"The heart and circulation are not greatly affected by small doses of morphia. There is slight slowing—the cutaneous results dilate apparently from depression of the vaso-motor centre in the medulla. This dilatation gives rise to a full pulse and to a trifling fall in the blood pressure." I have no observations as to the effect of morphia in healthy individuals, but certainly in pathological conditions this last statement of Stockman does not coincide with the results I have observed, some of which I have brought before you.

(Read before the Pathological Club of Sydney, on 7th November, 1907.)

MEDICAL DEFENCE IN SOUTH AUSTRALIA.

An Address by W. T. Hayward, M.R.C.S.,
President, Medical Defence Association of
South Australia.

In moving the adoption of the report that has been presented to you, I will take the opportunity of referring to some of the questions that have been before your Council since our last annual meeting.

In January last the executive of the Pharmaceutical Conference, held this year in Adelaide, invited your Council to be represented. I attended as your delegate and took part in a discussion on "The Relation of Physician to Pharmacist." The outcome of this was a conference between the local Pharmaceutical Society and the Medical Defence Association, which was represented by Drs. Gunson, Cavanagh-Mainwaring and myself. It is not surprising that with two bodies of men like the medical practitioners and the chemists and druggists, where the dividing line cannot be accurately drawn as

far as their respective functions are concerned, points of friction may arise, and I think you will agree that it is to the advantage of both parties that these points should be amicably considered and an endeavour made to reduce the friction as much as possible. The first thing to be done is to have the grievances of both sides accurately defined. This we endeavoured to do. The most important of the chemists' grievances were:—

1. Medical practitioners dispensing their own medicines.

2. The increasing practice of prescribing foreign-made preparations, often in original packages.

3. Prescribing inordinately large quantities of drugs for lodge patients.

4. The off-hand recommending of drugs for specific ailments.

5. Medical men insisting on prescriptions being dispensed by a certain chemist.

Your delegates took the stand that however desirable it might be that, as a general practice, prescriptions should be dispensed by the chemists, they could not admit that medical men should be debarred from dispensing their own medicines should they so desire.

I think there is a good deal in the second grievance. By every mail we have literature extolling the virtues of certain proprietary drugs, and we are asked to be sure and specify when prescribing the initials of the particular maker—A.B. or C.D., etc. This means that the chemist has to stock these various preparations in bulk, and often enough he has no second call on many of them, and consequently is out of pocket on that account. Some of our members seem to have the habit of prescribing every new drug that is brought under their notice. I would suggest that if they wish to experiment in this direction they should do it by means of samples; if favourably impressed they could then prescribe as usual. I would also urge that if they wish to prescribe by formulæ they should find out whether what they require is to be found in the Australian Pharmaceutical Formula before resorting to those of American or German manufacturers. There is something in the grievance that drugs are prescribed in original packages. This practice not only is against the interests of the chemist, but it distinctly favours self-medication. As an example I may mention that only a few days ago my attention was directed to a phial of tablet of iodides of mercury, the

original label untouched, which the patient said she had been instructed to obtain by her former medical attendant. She had been taking them for two months without medical supervision.

I was astounded at some examples mentioned of the prescribing of large quantities of drugs for lodge patients. I am sure that it is not a general practice amongst lodge surgeons, and I am sure that all that is necessary is to draw attention to the unfairness of asking chemists to dispense prescriptions that will not only yield them no profit, but entail a pecuniary loss. And while on this topic I would direct your attention to the extra duty that has been put on tinctures—about 200 per cent., I think, and drugs in general—by the new tariff. Could we not lessen the cost to the chemist by frequently substituting infusions or concentrated liquors for tinctures without any detriment to our patients?

The delegates of the chemists were surprised and pleased to learn that our Association had set its face against cryptic prescriptions and the practice of uniformly sending patients to certain chemists. I am sorry to say that I believe this latter practice still obtains amongst some of our members. May I point out that, however incorrect, the inference will be drawn by some people that the doctor benefits pecuniarily by this arrangement.

The outcome of our deliberations on these grievances was the passing of the following resolution:—Recommended to the M.D.A.—“That whenever possible prescriptions be written for standard drugs, including compounds the composition of which are known, in preference to proprietaries.”

The grievances presented by your delegates may be briefly summed up under the headings of chemists prescribing and the undue repetition of prescriptions without instructions from prescribers.

The “prescribing chemist” received no sympathy or encouragement from the chemists’ delegates. Mr. White affirmed that the harm done to the medical profession by counter practice was much exaggerated; that in the vast majority of cases in which chemists did prescribe the individuals would never go to a doctor, but would be content with buying some of the many advertised nostrums; that in many cases the chemists advised their customers to consult a medical man; that the abolition of counter practice would not benefit the medical profession, but only increase self-medication. There is a good deal

in these contentions. A great many people who do not feel ill enough to consult a doctor yet think it necessary to take some medicine, and it is not very material to us whether they get some harmless placebo from a chemist or use their own judgment and take Dr. So and So’s “cure everything.” This tendency to self-medication is pretty universal. I came across an amusing instance in the newspaper a few days ago. A case was brought before a distinguished Victorian judge—perhaps more distinguished for his social than his legal attainments—in which a doctor’s charge of £5 5s for attending a child suffering from rheumatism was under review. Sir John Madden is reported to have said: “Some people have a passion for squandering money on doctors. A wise woman claps on a mustard plaster when an unwise one takes a child to a doctor. It is quite likely that a small bottle of St. Jacob’s oil would have been quite effectual in this case.” Had the mother followed the advice of the learned judge it is quite possible that the child would have been an invalid for life, owing to heart disease. Now, supposing that instead of getting a bottle of St. Jacob’s oil she had taken the child to the chemist and asked his advice I think it most probable that he would have advised her to consult a doctor, as his knowledge of the possibilities in such a case would have been infinitely superior to that of even the Chief Justice of Victoria. If we can rely on chemists advising all doubtful cases to consult a doctor we shall not be much hurt if they give a few doses of paregoric for Johnny, who has a cold and really does not require medicine.

The question as to the repeating of prescriptions is a very difficult one. The chemists say that the trouble is greatly increased by our printed request that the prescription be returned, and this is probably correct.

A resolution was passed: “That it be a recommendation of this conference that the Pharmaceutical Society should discourage as far as possible undue repetition of prescriptions without instruction from the prescribers.”

I daresay it may be said that the resolutions of and the proceedings of this conference are of a nebulous character, but such is bound to be the case; constituted as the two bodies are, no hard and fast rule of conduct is possible. But if a friendly rather than an antagonistic feeling has been engendered; if it has shown that there is something to be said on both

sides; if it has tended to a more friendly feeling, the time spent will not have been wasted. I should like to express my appreciation of the kindness and courtesy my colleagues and I experienced at both the conferences, and for the kindly and fair comments published in the *Chemist and Druggist*.

You will be pleased to note that the question of lodge practice has been under consideration by your Council, and that steps are being taken to remove some of the disabilities connected with it. I am not one of those who look upon lodge practice as a form of charity, and I consider that lodges are perfectly justified in resenting such a suggestion. No man is bound to take this form of practice, and if he undertakes it he is in duty bound to give as much professional attention to his lodge as to his ordinary patients; indeed he *contracts* to do so; but on the other hand he is justified in endeavouring to obtain a fair contract price for his services. The question is: Is the present contract rate a fair one? Doubtless I am not the only one amongst you who has noted that his living expenses and the expenses connected with the earning of his living have greatly increased of late. Moreover this increase has in a large measure been induced by increased wages demanded and obtained by the people who form the bulk of lodge patients. Whether the contract rate was fair or not a year or two ago, I cannot but think that it is so no longer. The balance that previously existed has been disturbed and we are the sufferers. Ought we not to endeavour to rectify this state of affairs? I decidedly think so. An effort should be made to increase the fee for family lodges to 30s per annum. Certain lodges pay that fee ungrudgingly. Why should not all? Besides it is manifestly unfair that a doctor should charge one lodge 30s and perform the same services for another for 25s. Let us take a lesson from our lodge patients. They have obtained their increase of wages by "combination"; let us adopt the same principle. The attention of the Council has been directed to the tax on lodge surgeons by the frequent requests for subscriptions in connection with the various lodges, cricket clubs, etc. The Council does not feel that it can interfere in the matter, but for the guidance of members it may be mentioned that it understands that some lodge surgeons invariably refuse such requests.

Before concluding my discursive remarks, I should like to mention one little point that

has struck me. We are all opposed to any form of personal advertisement; yet in my peregrinations around the city and suburbs how often do I notice brass plates with the names of various practitioners attached to the portals of chemists' shops staring me in the face. What is this but a bold advertisement? Of course, I am not alluding to the intimations that the doctor consults at the shops at certain times.

One word more. I wish to draw your attention to the fact that our esteemed secretary has once again consented to fulfil the duties of the office, and to acknowledge the amount of work that he has done for the Society, and the cordial assistance I have at all times received from him during the past year.

A CASE OF GANGRENE OF THE ILEUM.

By E. H. Binney, M.B. et C.M. (Syd.), Honorary Surgeon Royal Alexandra Hospital for Children, Sydney, N.S.W.

ON June 8th of this year I was called in consultation to see a little girl, aged 5 years and 4 months. She had been taken ill suddenly two days previously with acute abdominal pains, which were very severe and made her vomit. There was a vague history of a recent fall, and a more remote history of being subject to pains in the stomach. After the onset of the first symptoms the pains became worse, more frequent, and associated with vomiting; vomiting became persistent and constipation was complete.

On examination the patient was a thin and rather emaciated girl. She lay with sunken eyes, dried tongue, and quickened pulse; her temperature was 101°F. The legs were drawn up, and, on inspection, the abdomen was motionless, but not much distended; palpation caused great pain. In the middle line an indefinite swelling could be made out, and this seemed to diffuse itself over the whole lower abdomen. There was a peculiar subcutaneous ecchymosis over the lower part of the abdomen, extending down to the groin on either side. The diagnosis of acute intestinal obstruction was made, and an immediate abdominal section advised. The patient was removed to the Royal Alexandra Hospital for Children and admitted under my care.

Operation I.—Under anæsthetic administered by Dr. Lethbridge, a median abdominal

section was performed, the incision extending from below the umbilicus down towards the pubis; the subcutaneous tissue and peritoneum were cedematous and infiltrated with dark fluid. On incising the peritoneum a darkish offensive fluid exuded. On inserting the fingers, what appeared to be recent adhesions were felt, and the whole area was dark in colour. The characteristic odour of a ruptured appendical abscess, together with the tracking of fluid towards the ileo-cæcal region, led me to expose this area through a new incision over McBurney's point; here it was found that the appendix was very inflamed, owing to its having taken part in the peritonitis, and the serous covering of the bowel in the neighbourhood was greatly injected. This, however, was evidently not the trouble, so the wound was closed hurriedly and a cigarette drain inserted. Being certain that the mischief had not arisen from the appendix, the abdominal cavity could then be more boldly explored from the middle line. A collection of fluid was found in Douglas' pouch, a smaller one to the left and a larger one upwards. On further inserting the finger amongst intestinal coils, which had all the appearances of peritonitis on their serous coats, a knuckle of gangrene ileum was encountered; this had either become twisted on itself or been constricted by a band; it was black, soft and flaccid, and had evidently allowed organisms to pass through its coats, giving rise to peritonitis. This was easily delivered into the wound and the gangrenous portion excised. The two open ends were then sutured into the wound and loose packings of gauze inserted into the peritoneal cavity in all directions radiating from the newly formed anus. A few through and through silk worm gut sutures were passed through the abdominal walls to bring the edges of the wound lightly together. A tube leading from the intestinal opening was inserted, and the child put back to bed. Her condition was very bad at the time; she was delirious after recovering from the anæsthetic, had a running pulse, and about one hour after the operation had a convulsion. I ordered morphia to be given and repeated if the child did not sleep. This appeared to be contrary to ordinary practice; but as the child had an opening in her small gut there was not much fear of the bowels becoming blocked, and some sedative was necessary to shelter the child from the profound shock its system had sustained from the operation. The morphia

had the desired effect, a fairly comfortable night was passed, and next morning the upper abdomen was flat, and very little vomiting ensued. Fluid was given freely by the mouth and rectum. The aspect of the abdomen at first was ghastly, fæces flowed from the intestinal opening, and the gauze drains became soaked with pus and fæcal material. The child, however, continued to hold its own, and in a few days a Paul's tube was substituted for the ordinary rubber one; the gauze drains in the abdominal cavity did their work well, and were gently withdrawn and shortened from day to day for a few days, and then removed after granulations had formed around them. At the end of a week the abdominal wound, which had gaped considerably, contained the two ends of the divided ileum and a mass of granulations, the whole of which was becoming herniated into the opening; this was encouraged by an attack of pneumonia, and altogether the outlook was gloomy. The child, however, battled with her condition, which was one of septic absorption, pneumonia, and semi-starvation, which always is to be feared when a large area of absorbing intestine is cut off. At the end of a fortnight improvement general and local followed, the abdominal wound began to contract, aided by strapping the edges together. During the third week she was doing well, and plans were being devised to close the artificial anus and short circuit the intestinal tract. Circumstances, however, precipitated this, as about three weeks after the operation an attack of intestinal obstruction occurred; the false anus passed nothing, vomiting ensued, accompanied by abdominal pain and tenderness. After enema and aperients had been unsuccessfully tried it was decided to operate. The cause of the obstruction was considered to be contraction of peritoneal adhesions around the proximal portion of the small gut and above the false opening.

Operation II.—This was performed on June 29th. Under anæsthetic an incision was made in the left semi-lunar line and the abdominal cavity opened; it contained fluid, and the presenting serous coats of the bowel were inflamed; the area just above the median incision was examined and found to contain distended intestine. No manipulation of this part was effectual in causing fæces or flatus to pass by the false anus, and digital examination of false anus before the section, together with passage of a catheter, both failed to bring about any result. Two courses were

now open, either to make a new artificial anus or to make an anastomosis between the distended gut and the lower bowel. On the assurance of Dr. Lethbridge, the anaesthetist, that the patient would stand the operation, a lateral anastomosis was done between the distended ileum and the next adjacent part of the large bowel, which happened in this case to be the sigmoid flexure, in fact. Mr. Arbuthnot Lane's operation of ileo-sigmoidostomy was performed. Before inserting the row of hæmostatic sutures; the distended small gut was incised and relieved of its faecal and gaseous contents by means of a catheter. A double gauze drain was put into the abdominal cavity, one strand of which led upwards and another downwards to the newly-made intestinal junction. The child stood the operation very well, although her condition at the beginning was unfavourable. A fairly comfortable night was passed aided by morphia. The next day, by the help of an enema, a motion passed "per rectum," and some discharge escaped through the artificial anus. She made a slow recovery from the operation, more faeces escaped from the artificial anus, and the bowels were moved daily naturally. The abdominal wound was allowed to close in a few days after the drains had been removed. It happened that the manipulations of the ileum during the operation had freed the obstructed part from its adhesions and relieved the obstruction there, although there was no indication of this having happened at the operation, so the intestinal canal was patent in two directions, one leading to the false anus and another into the rectum. As the child was not gaining in condition, owing to loss of fluid and the cutting off of a large area of fluid absorbing surface, i.e., the colon, an endeavour was made to conduct the discharge from the proximal portion of the intestine in the false anus to the distal part; but all devices in the form of rubber, vulcanite, and glass tubing did not succeed. The most that could be done was to get a catheter into the distal portion and give saline and nutrients through this. About 14 days after the second operation the rectum "struck work," and all the excreta again came through the false anus. It seemed as if the ileo-sigmoid anastomosis had contracted; however, this corrected itself in a few days and discharged a daily motion. The false anus, however, discharged a considerable amount of excrement. Later on the patient was again anaesthetised and an attempt made to

close the artificial anus by a plastic operation. This was only partially successful, as in the course of a few days faecal material began to pass through the wound, the edges of which had broken down. The temporary closure of this opening, however, encouraged the other channel; more motion passed naturally and less artificially. This has been the order of events for some time, and although there is yet a faecal fistula it is contracting daily and needs less attention. The patient is in excellent condition and has been discharged convalescent to the Cottage at Camden, having rapidly put on weight. My intention is to give a fair time for the fistula to close before doing any further operation. It is a question whether it would not be advisable to make a further communication between the ileum and cæcum, seeing that most of the large bowel is cut off. The child's condition is so far good, and is apparently evidence of the truth of Metchnikoff's theory that the presence of the large intestine is superfluous.

Remarks.—I am led to report this case as being one in which the issue was very fortunate under the particularly unfavourable circumstances. I attribute the success of the first section to the existence of peritonitis, which, although extensive, had been comparatively slowly advancing, and had become shut off from the rest of the peritoneal cavity. The decision to form an artificial anus and pack off the areas of peritonitis around it resulted in saving of time, and I think gave a better chance to the patient than a more prolonged operation of end to end anastomosis. Having been obliged to do a subsequent short circuit operation in the face of acute conditions, added still to the serious outlook of the case. I can only say that the vitality of childhood is extraordinary, and that one never knows the limit of such patients' reserve power. I would like to take this opportunity of thanking the Medical Superintendent (Dr. Lethbridge) and other members of the resident staff, also the sisters and nurses of the Royal Alexandra Hospital, for their valuable help in this case.

(Read before the New South Wales Branch of the British Medical Association.)

PARTNERSHIP.—Well-qualified man (Sydney, Liverpool, London, and Edinburgh degrees and diplomas) requires above in Sydney or suburbs. Has had first-class experience. Apply to A.M.G. Office.

A CASE OF MALTA (UNDULANT) FEVER.

By T. Storie Dixon, M.B., C.M. (Syd.), Honorary Physician to Sydney Hospital.

THE following notes are, I think, of special interest in view of the opportunity afforded of establishing with certainty the occurrence of this ailment in a manner not always available in countries where clinically it may with good reason be diagnosed. The case occurred recently in the Sydney Hospital.

Notes by Dr. Gillespie, House Physician, Sydney Hospital.

J.F., 50, canteen manager, His Majesty's Navy, admitted complaining of feeling very dull, listless and tired and unable to go about; has diarrhoea, is at times very feverish, has no appetite, and a slight cough with good deal of expectoration.

On Examination.—Patient is anæmic and wasted; temperature 102°; pulse 110; weak low tension; has no pain anywhere. Abdomen, tendency to tympanites, no rash; liver seems normal in size, and am unable to demonstrate spleen; larger than normal, B.W.O. Tongue; is furred and dirty; the furring confined to back and middle of tongue, edges and tip clean. Chest; nil, other than a few scattered râles. Heart sounds well heard; no adventitious sounds. Reflexes; normal. Urine, 1020; alkaline; no albumen; no pus; no blood; Diazo reaction present.

Immediate past history.—Patient had been in habit of taking goat's milk in coffee and cocoa while in Malta; never took milk pure or with water.

On July 22nd, 1907, patient left Malta for Sydney via Suez, Singapore, Thursday Island. When he left Malta was in good health; went ashore at Aden and had roast beef and potatoes and a bottle of beer; had no other food or drink away from ship till he arrived at Singapore on August 20th. But on August 18th, two days before arrival at Singapore, patient felt ill; had no inclination for food; felt very weary, wanted to lie down; B.W.O., no diarrhoea. Only food on board, salt meat and biscuits. Patient went ashore at Singapore August 20th and on subsequent days, but took no food. Left Singapore August 27th, arriving at Thursday Island September 13th. All this time from August 18th to September 13th, patient one day better, another day very ill, never quite well. Appetite very poor. Bowels opened four to six times a day with motions, fluid, darkish in

colour and very foetid, and patient noticed he passed very little water. He was very drowsy and sleepy, and unable to get about well; would lie on deck all day long. Never had any pain to speak of in abdomen or limbs. At times had headache, never very severe, and at odd times also a somewhat more or less troublesome cough. Patient arrived in Sydney on September 20th from Thursday Island, feeling a good deal better, but still with above symptoms. On arriving in Sydney he went about with other Maltese seamen to see the city, though still anything but well. On 27/9/07 patient had sudden dizziness with cold sweat and fell down unconscious (had never done this before); and was admitted into hospital that day, having been seen by Dr. Fiaschi, who diagnosed condition as probably one of "typhoid fever or acute tuberculosis."

10/10/7.—Temperature normal; patient sleeping well; is very listless and drowsy; tongue, dirty; patient not complaining; is very anæmic and weak; abdomen soft; spleen not enlarged; liver, normal size; patient not passing much urine; disinclined for food; B.W.O. stools, dark and liquid.

5/10/07.—Patient very low and weak; temperature up and down, 101° to 98°; sleeps a great deal; no pain or tenderness in abdomen or other parts; at times head heavy; appetite poor; patient is being treated as an enteric.

10/10/07.—Patient about same, though temperature not above 99° for last five days; pulse 80 to 100, weak; respirations 24; B.W.O.; sleeps a great deal and feels very weak; not inclined to talk much.

20/10/07.—No change in patient, though seems just a little brighter; temperature not above normal since 5/10/07. It was now thought that patient might have Malta fever.

20/10/07.—Positive reaction obtained with the micrococcus melitensis; dilution 1 in 200.

25/10/07.—Patient seems a good deal better lately; temperature normal; patient is up and about on verandah on a lounge; not so drowsy; bowels not so lax, and motions have a tendency to be more solid; appetite better, and tongue much cleaner. 23/10/07.—Patient weighed 7 st. 3½ lb. 25/10/07—7 st. 4½ lb.

30/10/07.—Patient improving, is much brighter and better, takes interest in things, is not so drowsy, has been out on verandah during day; temperature normal; has had slight diarrhoea to-day; pulse 80; good

tension and regular; patient still very anæmic looking. Patient now weighs 7s 11 lb., that is an average of a gain in weight of one pound a day since he began to be weighed, 23/10/07.

**Pathological Report by Dr. Archie Aspinall,
Resident Pathologist, Sydney Hospital.**

September 28th.—Widal reaction, 1 in 30, negative; leucocyte count, 8,400 per c.mm.; temperature, 102° F.

October 1st.—Widal reaction, 1 in 30, negative; leucocyte count 4,400 per c.mm.; temperature, normal, but had been 103° F. on the previous day.

October 5th.—Sputum examined for T.B., with negative result; patient expectorating freely.

October 19th.—Widal, 1 in 30, negative; no T.B. seen in sputum examined; temperature, normal for 12 days.

October 26th.—Urine, alkaline, high colour, sp. gr. 1015, no albumen, no pus, no blood, no casts; urate of ammonia crystals present.

October 29th.—Leucocyte count, 11,200 per c.mm.; temperature, normal for nine days; patient expectorating freely.

Three blood examinations were made:—

The *first* on October 27th.—Temperature, normal for 16 days. Red cells, 4,408,000 per c.mm.; Hb. value, 100 per cent.; colour index, 1.1; Rouleaux formation, good; no nucleated red cells; shape and size of cells, normal; no polychromatophilia. Leucocytes, 13,900 per c.mm.; P.M.N., 72.2 per cent.; large lymphocytes, 16.2 per cent.; lymphocytes, 10.4 per cent.; eosinophiles, 1.2 per cent.

Second on November 13th.—Temperature, normal, but had been 103° F. on November 10th. Red cells, 4,020,000 per c.mm.; Hb. value, 70 per cent.; colour index, .8; Rouleaux formation, good; shape and size, some megalocytes; nuc. reds, none seen; polychromatophilia slight; leucocytes, 6,600 per c.mm.; P.M.N., 76.4 per cent.; large lymphocytes, 12 per cent.; lymphocytes, 11.6 per cent.; eosinophiles, 0 per cent.

Third, on November 28th.—Temperature, normal for eight days. Red cells, 4,900,000 per c.mm.; Hb. value, 70 per cent.; colour index, .7; Rouleaux formation, good; shape and size, some megalocytes; polychromatophilia, slight. Leucocytes, 7,200 per c.mm.; P.M.N., 66.6 per cent.; lymphocytes, 20 per cent.; large lymphocytes, 13.4 per cent.; eosinophiles, 0 per cent.

On October 19th, at the request of Dr. Dixon, and through the courtesy of Dr. Millard, I was able to test the reaction of the patient's blood serum, with a fresh culture of the micrococcus melitensis, at the Board of Health, and found that there was almost immediate agglutination with a dilution of 1 in 60. Subsequently, Dr. Millard found that, with dilutions of 1 in 150 and 1 in 200, agglutination was absolute in 40 minutes.

On the same day an attempt was made to obtain the organism from the patient's blood. The skin having been carefully sterilised, 5 c.c. of blood was withdrawn from the median cephalic vein by means of a hypodermic needle fitted to the end of a glass tube, being plunged obliquely into the vein. The blood was immediately poured into a flask containing 100 c.c. of broth. This procedure was repeated on October 22nd and on November 6th, using 1.5 c.c. of blood instead of 5 c.c. No growth was obtained, however.

On November 10th the temperature went up to 103°, and two days later, i.e., on November 12th, at 9 p.m., when the temperature was normal, 1.5 c.c. of blood was withdrawn, and at once placed in a flask containing 100 c.c. of broth, which had been incubated at 37°C. for some hours.

On November 20th, i.e., eight days later, the broth was quite turbid; and microscopic examination revealed the presence of very small cocci, which stained readily by carbol fuchsin, but not by Gram's method. A subculture was made on ordinary agar, and two days later three very small, round, opalescent colonies were observed. Stained preparations of this growth showed the organism to be in pairs resembling very small bacilli. Stroke cultures were then made on agar, and the growth had the appearance characteristic of the micrococcus militensis.

On November 24th the patient's serum, diluted 1 in 40, was tested with a fresh culture of the organism (20 hours growth); absolute agglutination was obtained in 15 minutes. No reaction whatever was obtained with normal blood serum, 1 in 40, nor with the serum, 1 in 30, of a patient who gave a positive Widal reaction.

Four attempts have been made to obtain the organism from the urine, without success as yet.

The following is a brief description of the micrococcus militensis, taken mainly from Muir & Ritchie's Manual of Bacteriology, 1907 edition:—"The micrococcus militensis

is a small, rounded, or slightly oval organism, about 4 micromillimetres in diameter. It usually occurs singly or in pairs, but in cultures short chains and bacillary forms are met with. However, the characteristic form is that of a coccus. It stains easily with the ordinary basic aniline stains. Does not stain in Gram's method. It is generally said to be a non-motile organism, it is specially abundant in the spleen and can be obtained from the blood during life in about 50 per cent. of cases, and from the urine in 10 per cent. of cases. It grows well on ordinary faintly alkaline media. The colonies on agar, which are not usually visible before the third or fourth day, appear as small rounded discs, slightly raised and of somewhat transparent appearance. The maximum size, 2 to 3 m., is reached about the ninth day, and at this period, by reflected light, they appear pearly white, whilst by transmitted light they have a yellowish tint in the centre and bluish white at the periphery. Stroke culture on agar shows a layer of similar appearance with somewhat serrated margins. On broth there is general turbidity with a flocculent deposit at the bottom. Outside the body the organism has considerable powers of vitality, having survived in a dry condition in dust and clothing for two months."

In conclusion, I should like to thank the Nurses of "K" ward, Sydney Hospital, for the care with which they prepared the patient's skin, without which the blood examinations would have been futile.

Commentary.—The chief interest in this case lies in the definite recognition of the disease in New South Wales and in Australia probably for the first time. This statement calls for the explanation of the grounds upon which the diagnosis has been made. The symptoms were sufficiently like those of typhoid fever or, after that, if excluded, of acute tuberculosis, to require investigation on the lines needful for the diagnosis of those ailments. A thrice repeated Widal was negative, and the sputum examination gave no confirmation of the presence of tubercle. The course of the fever—that is, its disappearance and the general improvement in the appearance of the man—made one think of the possibility of some other cause being at work. Understanding from the patient, whose knowledge of English was very defective at the best, and who only became lucid and lacking in irritability as the fever disappeared, that he had come from the tropics, the possibility of some

other form of ailment suggested itself, of which Malta fever and kala azar seemed the most important to inquire into. During the fever the patient was too petulant and drowsy to give a coherent history, even contradicting himself somewhat. For example, he sometimes led one to believe that he had had headache and sometimes denied this. The impression which he gave me at first was that though a Maltese it was years since he had been home. As his fever went off, his mind cleared up, so that he was able to give a sufficiently satisfactory and clear history of his movements anterior to arrival in Sydney. From early in 1906 he had been for a year away from Malta, and indeed from the Mediterranean altogether, visiting different parts of the world. Then he returned for a short time to Malta, then went to England, spending three months there, and then went back to Malta for two weeks, leaving it on July 22nd for Sydney on a British warship as canteen manager. At first he insisted that he had got ill at Singapore, and that each time he had been there before he had got sick. On asking him to be very exact he said that he had got ill two days before reaching Singapore. It was now that we were able to find that he had been in Malta recently, and that though he had landed at Port Said, Aden, and Colombo he had apparently drunk nothing likely to cause Malta fever, if that should prove the ailment. Since the possibility of Malta fever being the trouble was now established, the agglutination test seemed the most immediate and reliable solution of the question. Fortunately the micrococcus melitensis was in stock at the Board of Health, and proved to be alive (though the test seems to be available even with the dead organism). The acting President of the Board of Health (Dr. Tidswell) kindly permitted the work being carried out in that laboratory, where, under the supervision of Dr. Millard, Dr. Aspinall was able to show that the blood of our patient agglutinated the micrococcus melitensis certainly in a dilution of 1 in 60, and Dr. Millard did so with even in 1 to 200. This agglutination test has been shown to be very reliable, Fleet-surgeon P. W. Basset Smith having proved that even with so low a dilution as 1 in 30 no blood but that of Malta fever causes agglutination. In one case 1 in 10 dilution of blood from abscess of a knee-joint did so. Blood kept for four years retained this power. Even so long ago, as 1897 Drs. Wright and Smith stated that a

1 in 50 dilution acting within 30 minutes might be held as positive. But Dr. Smith shows that in chronic cachectic cases of Malta fever of, say, four months' duration the reaction may be so weak as to require use of low dilutions. Naturally, though Dr. Smith tested 150 cases with the above result, and other investigators confirm his opinion, one seeks other evidence if such be available.

General Symptoms.—The most striking of these was the anæmia. This was associated with loss of memory, drowsiness and irritability, and the tongue was coated in the middle, while the tip and sides were red. As regards pulmonary signs, it is stated that these seem in the earlier stage to mostly affect the left lung at the apex; but our patient had râles coming and going, and these were not restricted to any very definite location. The remittance of the feeling of illness and especially of diarrhœa was definite. When the relapse occurred there was the rise of 1 to 2° F. in the evening, which is specially noted in this ailment. It is noticeable that the diarrhœa seemed to have no special relation to the fever. There was never any pain worth mentioning; at least the patient denied ever having any worth consideration. Neither spleen nor liver were evidently enlarged or tender; there was no skin rash, nor falling out of the hair, but sometimes sweating was unduly noticeable.

Period of Incubation.—If we accept that not later than July 22nd was the date of infection, and that the first symptoms showed on Aug. 18th, we have 27 days of incubation. Now, aside from the fact that ambulant cases of this fever are not uncommon—cases in which the patients do not feel ill enough to be prevented doing their daily work—it has been clearly established that the symptoms may not show themselves for five or six weeks at least after probable date of infection. It is noteworthy that during the relapse our patient protested that he felt nothing special amiss.

Confirmation from subsequent course of case.—As stated above, the subsequent temperature during the relapse was rather characteristic, but especially were we fortunate in the results of the blood examination. Hitherto, as the patient was feverless when the blood was tested by trying to make cultivations from it, the usual negative results were experienced; but when three days of the relapse had passed and the temperature still continued, I suggested to Dr. Aspinall to try again. The results of his perse-

verance were successful, and he was able, as he will himself narrate, to not only cultivate the organism but agglutinate it from the patient's own blood.

Treatment.—The patient's symptoms were never troublesome. Even when his fever rose in the relapse he expressed surprise at the interest we showed in his case, not feeling ill, only weak. We were very fortunate, indeed, that he did not object to the necessary blood examinations. As it was necessary to confirm the diagnosis, the treatment was rather expectant and dietetic; the more so that the symptoms were practically unimportant by the time that the diagnosis was fixed. The most promising treatment so far, though by no means established, is the inoculation method—i.e., injection of large numbers of bacilli cultivated in agar, diluted to a certain amount, and estimated to a certain numeric value of organism present. Dr. S. T. Reid, for example, found that the temperature was raised for not over 48 hours after these injections, and that in about a dozen cases in which the method was tried the result varied, but reduction of temperature to normal, loss of pains, or rapid gain of weight were one or all attained with very encouraging frequency. We had no opportunity of doing this; indeed, when the diarrhœa ceased our patient's gain of weight was very rapid.

Risk of Infection.—The final thought comes as to a likelihood of the disease spreading. To begin with, it is quite possible, if not probable, that the disease has been here before and escaped recognition; for investigation of wharf labourers in Malta showed that many men gave the agglutination test and even had micro-organisms present, yet were at work. One must picture the great sea traffic coming to Australia and that the ailment is certainly endemic all round the Mediterranean, extending from Gibraltar to even Constantinople. Moreover, it has been stated to have been recognised in North and South America, that it is endemic in the Orange River Colony, has been found among many patients in India, has been also noticed in China, and to crown all, that it has been recognised in Manila and Fiji.

Although goats have been found as the probable source in Malta, cows there have been proved as widely affected as the fomer animals. Of goats, 50 per cent. showed the agglutination test, and 10 per cent. were proved actually to excrete the

organism in the milk for three or four months without at any time exhibiting signs of illness, nor was the milk apparently altered to naked-eye appearance. Time will show whether the risk here is real enough to require the ailment to be registrable, for though the death-rate is only 2 per cent., the sequelæ are often most distressing.

(Read before the New South Wales Branch of the British Medical Association.)

SOME BRITISH AND FOREIGN CLINICS.

By Ralph Worrall, M.D., Honorary Gynaecologist to Sydney Hospital.

(Continued from p. 628, December No. of the A.M. Gazette.)

St. George's Hospital.—Mr. Dakin did vaginal hysterectomy for carcinoma of the cervix, of which there had been preparatory treatment. Silk sutures were passed with a large curved pedicle needle to partly shut in the growth and also act as tractors. The pedicle needle was threaded after it had been passed, which involved some loss of time. No specula were used. The incision in mucosa was made by scissors.

The broad ligaments were clamped with ordinary pressure forceps in sections, which after the removal of the uterus and one appendage were tied, without any transfixation, with silk ligatures cut short. After all had been tied there was still some oozing, but this was disregarded. There was no suturing of either peritoneum or vagina; the vault was packed fairly firmly with gauze. Mr. Dakin has never seen any prolapse of intestines after this method. Mr. Dakin is a cool and fairly rapid operator.

University College Hospital.—Mr. Herbert Spencer operates in rubber gloves, boots, mask, and overall. He uses no abdominal retractors nor needle-holder, and yet does not appear to be disadvantaged by not doing so. Mr. H. S. is a strong advocate for total hysterectomy for myoma, even when the cervix is nulliparous, as in a large pear-shaped tumour which I saw him remove. The method adopted was that of Doyen. Silk ligatures were passed by a sharp needle to secure vessels. The appendages were not removed. There was some loss of blood from the cut vaginal walls. Saline solution was freely poured into peritoneal cavity, overflowing on to the patient's chest and abdomen. The parietal wound was closed by through-and-through silkworm gut sutures passed from within out. The anterior aponeurosis was also united by interrupted sutures of silk,

no gauze drain. The vaginal walls were not united. The operation lasted one hour. Mr. S. next did an abdominal section for cancer of the cervix, but found the disease too extensive to admit of removal. The third case was also cancer of cervix and almost as bad, but Mr. S., who has the reputation of never considering anything but the interest of the patient, went on with the operation by the method of Wertheim. A very large curved pedicle needle was used for passing the silk ligatures. The vaginal walls were divided with an electric cautery. A rubber and gauze drain were brought out in the lower angle of the abdominal wound. No vaginal drain. The pelvic peritoneum was not sutured, possibly because the patient's condition was very low. Mr. S. has devised an ingenious method of making diagrams of abdominal tumours by means of a pencil which writes on glass held over the tumour; the outline made is subsequently transferred to paper.

At the Westminster Hospital I saw Mr. Rivers Pollock operate for uterine prolapse with relaxed pelvic outlet. A large flap-splitting perineorrhaphy only was done; the position of the uterus to be subsequently corrected by means of a pessary.

I visited the Grosvenor Hospital with Mr. Butler Smythe and saw some very interesting cases. This is a very good modern building.

At the Royal Hospital for Children and Women, Waterloo-road, a new up-to-date building, Mr. Gow did a subtotal hysterectomy for myoma, standing on right of his patient, as do almost all London gynaecologists (Mr. Spencer being an exception). He uses marine sponges, makes his incision end about three inches above the pubis, uses sharp curved Hagedorn's needle and sharp handled needle for transfixation, threads his needles himself (silk ligatures,) cuts the cervix straight across, leaves a mushroom pedicle at each infundibular pelvic fold, does not top sew the peritoneal flaps, as he says they cohere without this; closes the abdominal wound by through-and-through silk worm gut sutures with buried sutures of the same for the anterior aponeurosis. Dr. G. has rarely seen any trouble from these buried sutures. The tumour was an intramural growth undergoing necrotic change, which had caused pyæmia and brought about abortion at mid-pregnancy recently. Operation lasted one hour. Dr. Gow gives one the impression of being a very cool, methodical operator.

Mr. Mayo Robson has no hospital appointment, but operates every morning in one of

three private hospitals to which he sends his patients. The operations are done in the patient's room on a "Guyot-Greville" portable table, which enables one to dispense with sandbags in liver and kidney surgery. The dressings, ligatures, etc., are prepared in Mr. Robson's laboratory by his assistant, Dr. Forsythe, and brought to the hospital in airtight containers. Notwithstanding the disadvantage of having to operate in an ordinary small room, in all essentials the aseptic technique is almost perfect, and this is shown in the results. For ligatures iodised catgut is used; for suturing catgut and Pagenstacher's thread, and for anterior aponeurosis 20 day chromic gut. There is only one assistant. One nurse is also present, but she rarely has anything to do. The instruments are few. Needle-holder is not used. The needles are round, curved $\frac{1}{4}$ circle, held in the fingers.

Dr. Cammidge reports on the chemistry of the urine and fæces in all cases before operation, and in several of the cases which I saw he diagnosed the condition without having seen the patient. The anæsthetics are the gas, ether, chloroform sequence or chloroform alone. Dr. Horne is the anæsthetist. He never touches the conjunctiva, but is content with the palpebral reflex and appearance of the pupil. Mr. R.'s first case was posterior gastro-jejunostomy for duodenal ulcer, which had caused much hæmorrhage. There was much adhesion. Mr. R. does not use twin clamp forceps; his suturing is perfectly accurate without them. The parietal wound is united by continuous catgut in tiers, with a few points of chromic gut for the anterior aponeurosis in addition. Michel lead clamps are used for the skin. The various steps of the operation have been described by Mr. Robson in his book, so need not be repeated here. The bowels are usually opened on the fourth day by enema. In a case of choledochotomy two rubber tubes were used, one for the common duct and one for the gall-bladder. Another case of gastro-enterostomy was done for duodenal ulcer with very extensive adhesions about the pylorus, and a markedly varicose condition of the vessels of the stomach.

Appendicectomy on the third day of the second attack. Temperature normal this morning. A tumour felt in right inguinal region. Incision at the outer border of rectus. Two fairly large vessels cut and ligatured behind rectus, which was retracted

in. Abscess cavity opened into, offensive pus and two concretions evacuated; large perforation found at base of appendix involving cæcum; after removal of appendix opening in cæcum sutured with two layers of chromic gut; iodoform was dusted into raw surface; two rubber drainage tubes inserted with gauze wick in each; wound closed in layers as in all Mr. R.'s operations. Cellulose wool is used by Mr. R. as dressing to soak up discharges of urine, bile, etc. In another case of appendicectomy the appendix was seven inches long and was found congenitally adherent to the colon and kidney, which was movable. In another case of gastro-enterostomy a large inflammatory (?) tumour was found at the site of a duodenal ulcer.

Cholecystectomy was done for empyema of gall-bladder discharging for nine months through a sinus in the anterior axillary line opposite the tenth rib, which had remained after a large abscess had been opened in Lisbon in this situation, three weeks after sudden onset of acute symptoms. The track was traced between the muscles and peritoneum until at length the shrunken, thickened, almost unrecognisable gall-bladder was reached. Two rubber drainage tubes with gauze wicks placed down to right kidney pouch.

A small hydronephrosis due to mobility of the kidney torsion of the ureter was treated by nephrorrhaphy, with mattress sutures of plain and chromic gut, uniting capsule to muscles and aponeurosis.

A choledochotomy was done in a woman with acute cholangitis from stone in the common duct. Another surgeon had removed 40 gallstones seven years before. Mr. Robson found a fistulous communication between the gall-bladder and duodenum and very dense adhesions, both branches of the hepatic duct dilated, three stones in the common duct, offensive purulent bile in gall-bladder. The common duct was drained with a rubber tube; the remainder of the wound in it was closed with catgut. The wound in the duodenum was closed with catgut and Pagenstacher's thread. There was marked pancreatitis, which is always the case when the inflamed common duct goes through the head of the pancreas, which it does in 62 per cent. of all cases; in the remaining 38 per cent. it goes behind the head, and pancreatitis may be escaped. A full account of Dr. Cammidge's methods of obtaining the pancreatic reaction, etc., is to be

found in the book (just published) by Mr. Robson and himself on the pancreas.

In the next case Dr. Cammidge diagnosed floating stone in the common duct without involvement of the pancreas. This coincided with Mr. Robson's diagnosis and proved to be correct at operation; the duct went behind head of pancreas. The gall-bladder was shrunken; it was removed, and the common duct drained.

A case which had been under many doctors, with pains all over right hypochondrium, showed a very movable kidney and much tenderness over the gall-bladder. Dr. Cammidge's examination gave negative results; the gall-bladder was long, free from adhesions, and contained a large quantity of grape-seed like stones. Cholecystotomy and nephropexy were done at the same sitting.

During the month I was attending his hospitals Mr. R. did 22 abdominal sections, all the patients recovered, which I knew of my own knowledge, as Mr. R. kindly took me round the different rooms each morning.

I have already referred to the thoroughness of the aseptic technique. In operating Mr. R. seems to concentrate his attention on perfection of detail rather than upon mere rapidity. In difficult and doubtful cases nothing less than the permanent cure of the patient satisfies him, and he is never absolutely cornered.

St. Thomas's Hospital.—Mr. Tate did a total hysterectomy for multinodular myoma undergoing mucoid degeneration; the cervix was nulliparous and normal. Appendages not removed. Peritoneum completely closed. He also removed a suppurating ovarian cyst with pyosalpinx of same side, leaving the appendage of the opposite side, which was firmly adherent from old salpingitis. A third case was one of bilateral pyosalpinx.

None of these cases were drained. Mr. Tate sometimes drains either per vagina or anteriorly. He uses silk ligatures, sharp needles, no needle-holder. Broad ligaments in the last two cases were ligated with interlocking silk ligatures in sections, and the uterine ends of the tubes were included on each side in the last loop. The parietal wound was united in layers with continuous suture of iodised catgut. Mr. Tate has seen the wound on one occasion burst open on the tenth day.

St. Bartholomew's Hospital.—I saw Mr. D'Arcy Power do three operations. 1.—Case sent in as acute intestinal obstruction, proved to be a large ovarian

cyst with axial rotation of the pedicle the base was intra-ligamentous and was ligated in sections with strong silk before cutting away the upper part of the cyst. The parietal wound was closed in layers with silk and catgut. Second case was abscess in the right iliac fossa due to a perforation of the appendix close to the tip. The appendix was ligated and its stump covered over with catgut after having been touched with acid carbolic. Third case, tumour of left groin, sent in as "enlarged glands," proved to be a femoral hernia with very thick sac and omental contents. After these had been resected the pectineal fascia was united to Poupart's ligament.

I also attended Dr. W. S. Griffiths' out-patient clinic. Each patient has a card with a number which corresponds with a number on a large case sheet, and also a book number. The card continues in force for two months only. No payment is exacted. Half an hour is spent on an average on each new case. The patient is examined on her left side. No inspection of vulva is usually made. The sound is passed without the aid of a speculum. Pessaries are largely used. Great pains are taken with the clinical teaching.

Mr. Lockwood removed a mass of glands from the neck, and in another case did an external urethrotomy. He operates sitting down on a high stool. All sutures and ligatures are of silk except in septic cases. Several cases were examined with the cystoscope. The anæsthetic is always chloroform.

At the New Hospital for Women, Miss Aldrich Blake kindly allowed me to see her operate on a pear-shaped myoma of the uterus with a healthy cervix. Total hysterectomy was done, leaving the left appendage. The peritoneum was closed by a puckering-up suture over a gauze vaginal pack. None of the ladies wore caps or gloves, except a cotton pair by the sponge nurse. All ligatures were of silk. The parietal wound was closed by a buried continuous silkworm gut suture for peritoneum, anterior aponeurosis and a little muscle, passed by a Reverdin's needle; horsehair for the skin. Saline solution was poured into abdominal cavity. Second Case.—Young girl with history of pain in right inguinal region and passage of blood and mucus. Menstrual history not entered on the board. The appendix was removed through an incision along outer border of rectus. Four silk ligatures were applied to meso-appendix; the appendix was

ligated with the same. It appeared healthy ; there were no adhesions. Appendages were not examined, and there was no note of a vaginal examination having been made. Third Case.—Dysmenorrhœa and sterility, for which curettage was done and the cervix split posteriorly, the sides united separately by doubling them with interrupted sutures, thus leaving a very gaping os. In curettage the uterus was markedly pulled down by traction forceps.

At St. Mark's Hospital for Diseases of the Rectum, Dr. Fred Wallis (formerly resident in the P.A.H.) did Whitehead's operation for hæmorrhoids, also very extensive fistulæ in ano. The table used is A. & H.'s, and is very good for this class of work. Usually the patient is in the lateral semi-prone position, with the arm supported by an extension of the table for that purpose, which prevents the patient rolling over, and also injurious pressure on the chest.

I also saw Dr. Mummery operate for piles. When there are not more than three he dissects up each, ligates bleeding points and sutures the pile-bed with a round-bodied needle. Dr. Mummery's modification of the sigmoidoscope is that which is generally used in London.

Dr. Swinford Edwards excised the rectum (3 inches) for a soft papillary growth embracing three-quarters of the gut, having two weeks before done an inguinal colotomy. After removal of the growth he inverted and sewed up the proximal end of the bowel, leaving the colotomy as the permanent artificial anus.

Dr. Edwards also removed hæmorrhoids by the ligature method without any transfixation. The scissors used is in the form of a very handy shears.

On another day Dr. Edwards operated on another case of cancer rectum by Kraske's method, preceded a week before by abdominal section and colotomy. He has done 40 Kraske operations with one death.

In operations for hæmorrhoids he has done or assisted at 5000 cases by the ligature method without a death, and thinks this method immensely superior to any other.

St. Mark's Hospital is a modern building and up to date in every way.

At Peter's Hospital for Stone I saw Mr. Pardoe do some cystoscopy work with Casper's model, sterilised by washing and immersion in carbolic lotion 1 in 20, lubricated by glycerine. Catheters are sterilised by formaline vapour for 24 hours in an apparatus

called the "St. Peters." Catheters are lubricated by oil of vaseline floating on boiling water. Mr. Pardoe says that about 50 per cent. of all growths of the bladder, even if apparently innocent, recur. For prostatectomy he favours the suprapubic route for adenoma, the operation occupying about five minutes. If the growth is fibrous he operates via the perineum and tunnels through the gland with the finger.

At the London Hospital, Mr. Fenwick examined a patient with Nietzsche's cystoscopes and found pus dropping from the left ureter. Three weeks before he had removed the upper third of the left kidney for tubercular abscess ; the remainder of the kidney at that time was normal ; fever had continued, however. The previous incision, parallel to the last rib, was reopened, and the lower two-thirds of the kidney, riddled with pus collections, was removed ; thick silk was the ligature material, and silkworm gut for the through-and-through sutures which closed the wound, a space being left for a rubber drainage tube with holes along its entire length. Mr. H. F. operates with a forehead electric light.

At Guy's Hospital I saw Mr. Peter Horrocks do an ovariectomy for suppurating cyst due to axial rotation of the pedicle. He is one of the few London surgeons using catgut ligatures. The abdomen is flushed out with saline solution, and the parietal wound closed by peritoneal suture of catgut and through-and-through silkworm gut sutures for the remaining structures passed in such a way as to bring unlike structures together.

At the Great Northern Hospital, Holloway, I saw Mr. Lockyer operate for supposed suppurating ovarian cyst. It proved to be a pad left in at an operation in another hospital nine months previously. The pad was in an adventitious abscess sac, which was drained with gauze and powdered with iodoform. The patient recovered.

At the London Hospital Mr. Lewers did total extirpation of the uterus for cancer of the cervix, Wertheim's method. The case was a bad one from advanced disease. Silk ligatures, sharp needle used for transfixation, wound closed by through-and-through silkworm gut sutures with separate suture of the same for the anterior aponeurosis.

Charing Cross Hospital.—Mr. T. W. Eden did total extirpation of the uterus for cancer of the cervix in a woman, *æt.* 55. Twelve months' history. Sharp spoon had been used a few days previously. Apparently there was no parametrium infiltration. Silk ligatures

passed by transfixation with a sharp needle on holder. Parietal wound closed in layers with silk for the peritoneum, and interrupted chromic gut for the anterior aponeurosis, including the muscle. No glands seen or removed; no drain. Pulse 80 just after operation. Mr. E. opens the bowels in 48 hours usually.

Dr. Rivers Pollock kindly took me over Queen Charlotte's Lying-in Hospital. A very airy, bright, up-to-date hospital, small wards with from two to four beds in each, parquet floors, painted walls. Corridors and delivery wards have terazzo floors, and the latter are arranged and furnished as if they were up-to-date operating theatres. Delivery is induced when required by the bougie; de Ribes' bag is strongly recommended for placenta prævia. Forceps are used after two hours' second stage, unless considerable progress has been made. The pattern of forceps used by Mr. P. is long, light, straight, narrow-bladed without any pelvic curve. Axis traction is sometimes used. The clinical teaching to a mixed class of nurses and male and female medical students went on for one and a-half hours, and was very excellent and thorough.

I visited the Polyclinic for Graduates in Chenies-street, off Tottenham Court road, to hear Mr. F. I. McCann give a post-graduate lecture on displacements of the uterus. He is a lucid and enthusiastic lecturer, and had the best schematic diagrams for teaching purposes which I have ever seen (German). The museum, founded by Mr. Hutchinson, is beyond praise. Almost every skin disease is represented in the coloured pictures on the walls, and there are models of many rare conditions.

At the Hospital of St. John and St. Elizabeth, Grove End road, Mr. C. Lockyer operated for retroversion with fixation by taking up each round ligament with a single loop of silk carried through the muscle and aponeurosis, which when tied brought each uterine cornu into close apposition with the anterior abdominal parietes. The left appendage was removed, also the appendix, the latter by crushing and silk purse-string suture after touching stump with acid carbolic. No ligature.

Leeds General Infirmary.—The operating theatres are very good; walls lined by large sheets of blue glass, screwed on. The galleries are at the sides. Sterilised sheets are run along to prevent dust being shaken down on to the theatre.

Mr. Knaggs did a gastro-enterostomy in a man, using silk for ligatures, Pagenstacher for sutures; round-bodied, curved, calyx-eyed needles, no needle-holder. Parietal wound brought together with continuous catgut. He also did an inguinal hernia in a boy. Sac ligatured with catgut and anchored to parietes by the ligature carried through the muscles.

Mr. Dobson did complete extirpation of the uterus for cancer of the cervix (Wertheim's). The stomach came down right into pelvis. Vagina divided with cautery, then firmly packed with gauze. Peritoneum closed over the raw surface with iodised catgut passed by a Hagedorn's needle held in fingers. Cowardine's ligature carrier was used for ligaturing vessels. Parietal wound closed in layers with catgut and Pagenstacher. Only one gland in the specimen removed. Pulse 104 after the operation, fair. Second case was thought to be pyosalpinx, but after the abdomen had been opened the uterus and appendages were found to be normal. The appendix was long, but appeared normal. It was removed by crushing and catgut ligature with a covering in purse-string and two transverse sutures of Pagenstacher.

Mr. Littlewood's first case had been operated upon a year before for perforating gastric ulcer, and had remained well until two weeks before, when vomiting set in. A gastro-enterostomy was now done, differing from that done by Mr. Robson in that the new openings were made in the viscera before the suturing in order to avoid any infection of the chromic iodised gut sero-muscular suture by the bowel contents, which was most carefully sponged away before the suturing. The needle used for viscera was a small Hagedorn, held in the fingers on the flat. The anastomosis was not sutured to the opening in the meso-colon, as Mr. Littlewood thinks this is unnecessary. The parietal wound was closed in layers with plain and chromic gut iodised.

Second Case.—Chronic intestinal obstruction with acute symptoms superadded. The latter had been overcome by enemata since admission to hospital. A central incision was made below umbilicus and extended up to ensiform cartilage, when it was found that the splenic flexure of the colon was kinked by adhesion to a distended and inflamed gall-bladder (suppurative cholecystitis). Cholecystectomy was done and the raw surface on the colon carefully sutured. The uterus was

retroverted and was suspended by the round ligaments.

The third case was a pelvic abscess which had spontaneously partially evacuated itself through the vagina three weeks previously. A mass now filled pelvis and extended nearly to the ostium vagina. The patient was put into Trendelenberg's position and incision made from above umbilicus to the pubis. The appendix was adherent to a pyosalpinx on the right. Pus was escaping from the ostium of the tube. The latter was removed by clamping at the uterine end and ligaturing without transfixion. A mushroom pedicle was formed. The appendix was removed in the usual way. A rubber drainage tube with thick gauze wick was inserted and brought out at the lower angle of the abdominal wound. The anæsthetic was chloroform by Vernon Harcourt apparatus. I understand that Mr. Littlewood claims to have originated the modern operation of gastro-enterostomy. He impresses one as being a very able man, and is a quick dexterous operator.

Mr. Moynihan, at his private hospital, did posterior gastro-enterostomy for duodenal ulcer, and anterior gastro-enterostomy for irremovable cancer of the pylorus with enlarged glands in the mesentery and mesocolon. Pagenstacher's thread for suturing, needles round-bodied with Mr. Moynihan's $\frac{1}{2}$ -curve; no needle-holder. The masks for the face are suspended by metal spectacle frames, so as to keep them off the face.

The anæsthetist, Dr. Young, uses ether in a Clovers' apparatus with a bag of double twill. If the operation lasts some time chloroform is substituted. The pupil is watched, but the conjunctiva never touched. Mr. Moynihan is absolutely consistent in his aseptic technique. It is apparently without a flaw. He aims at perfection of detail rather than mere rapidity of operating. Mr. W. Mayo, of Rochester, U.S., who was present, said it was "a very pretty gastro-enterostomy." Drs. Haggard and Graham, of Rochester, and Dr. Harold Stiles, of Edinburgh, Angus and Lyle, of Newcastle, were also present, also Dr. Hooper, of Melbourne.

At the Infirmary a posterior gastro-enterostomy for duodenal ulcer was done. The parietal wound was closed with continuous iodine chromic catgut suture for peritoneum; the same thread was used for the anterior aponeurosis after through-and-through silkworm gut sutures had been passed. These latter were tied very loosely over a scissors to

avoid cutting. Michel's clamps were used for the skin. The dressings are kept on by formalin-gelatine applied around the edges, but no bandage or plaster is applied to the abdomen.

Second case.—Gastrectomy, with removal of several glands; the wound was closed without drainage.

Third case.—Exploratory for constant vomiting in a girl; no ulcer was found; the wound was closed.

Fourth case.—Attacks of gallstone pain for 30 years; once jaundice, pyrexia now. There were many adhesions. A fistula was found between gall-bladder and duodenum, a round stone in dilated common duct, and a shrunken thickened gall-bladder. Choledochotomy and cholecystectomy were done. A tube was stitched in the duct; this was surrounded by a large split rubber tube reaching to kidney pouch. No gauze. Culture is made of the bile.

Fifth case.—Gastrostomy for cancer of lower end of œsophagus; funnel method (Stamm-Kader).

At private hospital next day, Mr. M., assisted by Dr. Collinson, removed two mammae for cancer—the first, in a stout woman, *æt.* 54, with a mass of glands in the axilla, size of an orange. The axilla was attacked first, and the dissection made from without, in and down. All the small tributary veins of the axillary were ligatured. No more than 12 clips on at once, and only 25 ligatures applied. A rubber drainage tube was inserted into the axilla, the skin united by silkworm gut, and the dressings fastened on as in the abdominal sections with the formalin-gelatine. Duration of operation, 52 minutes.

Second case.—Patient, *æt.* 32, very rapid growth, invading three different areas of skin, large mass of glands in axilla. Huge incision required half way to umbilicus, raw surface could not be covered until flaps were brought from the flank. Duration, 70 minutes.

(To be continued.)

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The Weber-Parkes Prize and Medals. Prize of 150 guineas and two Silyer Medals. The next award will be made in 1909, and the adjudicators have selected as the subject of the essay for that occasion—"The value of Bacterial Products in Protecting against or in Curing Tuberculous Diseases, with Special Reference to Pulmonary Tuberculosis in Man." All essays, together with any preparations made in illustration of them, must be transmitted to the Registrar of the College during the last week of May, 1909.—EDWARD LIVING, M.D., Registrar, Pall Mall East, London, S.W., England.]

A CASE OF "FLESHY MOLE."

By J. W. Browne, B.A., M.B., B.Ch., Adelaide.

THE patient, Mrs. M., was first seen by me on December 26th of last year. The history was as follows:—She had been married about a year; was last unwell on October 9th; on Christmas Day she noticed that she was bleeding, and sent for me on the 26th. I found, on examination, that the uterus was enlarged, about the size one would expect at two and a half months, and that there was blood coming away from it. There was no pain. I diagnosed threatened abortion, and prescribed rest in bed, and gave a little opium. The patient stayed in bed altogether nine days, by which time the bleeding had stopped. Only blood was passed during this time. She then got up and went about her work as usual, and I congratulated myself on having prevented a threatened abortion. I may remark in passing that this is a thing I have always tried to do in any case of threatened abortion I have had occasion to treat, but have never yet succeeded in doing, with the possible exception of the present case.

I heard nothing more from the patient until May 6th, when she came to see me. Her complaint was then that she was not feeling altogether well; that she had "no life, and felt no interest in anything," also that she had not noticed that alteration in figure she was entitled to expect. The bleeding had not returned, and there had been no discharge of any kind. I examined again, and was a good deal surprised to find that the uterus had apparently not increased in size since the last examination; it was, so far as I could judge, exactly in the same condition. I told the patient that the child was dead; that it must have died at the time she had that threatened miscarriage, and that it had not come away as it should. I recommended operation, and explained to her that she would not be well until everything left behind had been removed. The family, however, had had a most unfortunate experience of operations in the past, and were strongly disinclined to submit to another, of the necessity of which they were not entirely convinced. They decided to await the healing influences of time and nature. I told the patient to come again in a month. She did, with the same story as before, and I again strongly recommended operation. This time she consented, asking, however, for four weeks' grace, to give those healing influences another chance.

On July 21st bleeding recommenced, accompanied by severe pain. There had been a slight brownish discharge for two weeks before this date. On the 22nd I found a mass protruding from the os uteri, which I withdrew, and then curetted the uterus. The mass referred to was about the size and shape of a small orange. It contained a cavity, opening to the exterior. The wall of the mass was about an inch thick; the material of medium toughness, and fairly uniform texture. No foetus recognisable. It was, I think, a well-marked specimen of the so-called fleshy mole.

The patient was quite well in a week, and has remained so since. The catamenia returned in four weeks after the expulsion of the mole.

The points of interest in the case seem to me to be the long time, nearly seven months, the mole was retained; the total absence of bleeding during that time; the aseptic condition of the mole; and the comparatively trivial symptoms its presence occasioned. The mole was expelled almost exactly at the time the foetus would have attained to term had it survived.

(Read before the South Australian Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTE**A CASE OF DISSEMINATED SCLEROSIS.**

THE patient whom I have exhibited to-night is a man 34 years of age. The family history is good. The previous history is also good. He positively asserts that he has never had syphilis. He has suffered from no illness or injury that could possibly have led up to this attack. He is a newspaper reporter by occupation.

The history of the present illness dates back about 12 months. His first symptom was weakness in the legs, which gradually increased till about four months ago numbness in the legs appeared. The other symptoms, tremor in the hands and unsteadiness in gait, became evident about the same time. More recently he has improved, if anything. He has never fallen. He does not suffer from headaches or vomiting. He has perfect control over the rectum, but there is some weakness of the bladder; that is, he cannot always pass urine when he wishes to; and when he does pass it, he cannot force it or hold it. He never passes any involuntarily.

On examination, he presents well marked symptoms of disseminated sclerosis. There is general muscular weakness throughout the body, more marked in the right arm and leg. There is no wasting of the muscles, other than would be accounted for by disuse. There is no anæsthesia, but sensation seems dulled in the numb areas, *i.e.*, the legs below the knees and the sacral region. The knee-jerks are exaggerated, and ankle clonus is present on both sides, more marked on the right. The plantar reflex gives the extensor response on both sides. Although the reflexes are exaggerated, there is no tendency to spasm in the legs. The hands give a well marked "intention tremor." The speech is normal. Nystagmus is present on bringing each external rectus into action. The pupils react very readily both to light and convergence. The optic discs are normal and vision is good. There is well marked ataxia, which is rather of the tabetic than the cerebellar type; as he expresses it, he can't keep his balance; this leads him to stand with his feet rather far apart. The ataxy is distinctly worse on closing his eyes; and if he is made to stand with his feet together he nearly falls. Apart from the nervous system, he is perfectly healthy. Before coming under my observation he had been under treatment with potassium iodide, gr. xv. t.d.s., for six weeks, without any benefit.

Sydney. J. MACDONALD GILL, M.D.

REVIEWS AND NOTICES OF BOOKS.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA FOR STUDENTS OF MEDICINE AND PHYSICIANS. By Joseph McFarland, M.D. Octavo; pp. 647, with 190 illustrations, a number in colours. Price, 25s. New (5th) edition. Philadelphia and London: W. B. Saunders Company. Melbourne: Jas. Little. 1906.

This is by far the best book we know on the subject in English. It is interestingly written, it contains most of the essential facts, and it indicates the sources where fuller information may be found. Though in advance of all other English books on bacteriology it is not, nor does it pretend to be, a complete reference book. Such are to be found only in foreign languages. The strong points of the book are the historical introduction, the completeness of the consideration of laboratory and cultural methods and of general principles, and the up-to-date account of immunity, especially of Ehrlich's side-chain theory, though we note in passing that the work of Arrhenius on physico-chemical lines has escaped attention. In the description of the various bacteria special attention is given to the appearance of young colonies under the low power of the microscope, though curiously enough this is omitted in the case of the influenza bacillus, just where it is specially important. Dr. McFarland has wisely confined himself to bacterio-

logy and refrained from excursions into other departments of parasitology. We do not understand, however, why streptothrix is excluded. Practical applications to prophylaxis, diagnosis and treatment receive due attention. Mixed infection is mentioned in gonorrhœa, typhoid and influenza, and considered in the case of diphtheria, but receives only scant attention in that of tuberculosis. It is wrongly stated that the bacilli of tuberculous diseases of lower animals are identical with those of human tuberculosis. Wherever the name Metchnikoff occurs an unnecessary "s" has been introduced; so, too, has a "c" in the words "a dice." The illustrations are very fine; but few are original, most being reproductions of the best from a variety of sources. There are good indices both of authors and of subjects. The paper, binding, type and production in general are a credit even to so deservedly praised a firm as the publishers.

RATIONAL AND EFFECTIVE TREATMENT OF HIP DISEASE. By P. Bruce Bennie, M.A., M.D. (Melb.). Compiled by A. B. Bennie, M.A., M.B. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1907. Pages, 108. Price, 5s.

This small book will be found of great value to the general practitioner, and any surgeon may well read it with advantage.

It is well written by a man who has had considerable experience in hip-joint trouble, extending over many years.

It advocates rest to the joint—complete rest—for a considerable period, and shows how this complete rest may be obtained by means of a *properly* fitting Thomas' splint, and enters into a very full description of how this splint is to be made, and the measurements taken. We thoroughly agree with the author in advocating the very gradual overcoming of deformity, also on his remarks on local treatment and the statement that there is often a syphilitic dyscrasia underlying tubercular disease. It is a book that will repay any medical man for the trouble in reading it.

MODERN METHODS OF DIAGNOSIS IN ORDINARY SURGERY. By Edward Deansly, M.D., B.Sc. (Lond.), F.R.C.S., Hon. Surgeon Wolverhampton and Staff General Hospital. London: H. K. Lewis. Price, 3s net.

Deansly deals with his subject under four headings: The Interpretation of Urinary Symptoms, Abnormal Conditions of the Urine, Physical Examination of the Patient and of the Urinary Organs, Differential Collection of Specimens of Urine. The author appears to consider four ounces of fluid to be essential in order to distend the bladder sufficiently for a cystoscopic examination, while a fixed amount of distension is advisable as a general rule, an examination may be made with a two-ounce distension.

The beginner is advised to use an anæsthetic for cystoscopic examination. This is hardly good advice. A beginner would be less likely to harm the bladder if he examined his first normal bladder without anæsthesia. He would then learn to manipulate gently, and the patient could advise him if he at any time touched the bladder-wall.

The chapter on the differential collection of specimens of urine indicates that the author looks upon this method as a valuable one. This opinion is not held by many surgeons, though under certain limited conditions it may supply valuable information. The book is an attractively written, useful book, and well worth reading.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH JANUARY, 1908.

THE PROFESSION AND THE STATE.

DR. WILLIAM EWART, in an address entitled "Res Medica, Res Publica," to which we referred last month, has some interesting remarks on the relation of the profession to the State. He deals first of all with the intrinsic value of the profession to the State, and considers this under various heads. "Above all conservative and above all progressive, its antiquity and stability are not merely ornamental, but columns of support for an institution. Its conservatism, copied from the teachings of Nature, spreads as a lesson which our time is least fitted to supply." "When humanity shall have passed through its era of diseases, our function of progress will stand better revealed in the promotion of its highest physical, intellectual, and moral development." He then considers the educational, advisory, and political functions of the profession, and shows that in the future, more than in the present, the profession will be required to render to the State the important service of showing how to adjust the increasing intellectual burden to the growth of the physical capabilities of the child."

Dr. EWART has a good deal to say on the value contributed to the State by the profession. He points out the immense services which are rendered to the State in the saving of human life, and while all other professions have State endowment or assistance in some shape or form, the profession of medicine is not assisted, not even with the education for the supply of that wealth which is year by year handed to the State, computed as wage-earning value of the human lives saved. The

profession has laboured in the past and still labours at the preventive of those diseases, as smallpox, typhus, cholera, phthisis, and plague—the profession labours and gives, the State takes. He shows that the workers in research in prevention pathology are really working against that of the profession in practice, and are unpaid for the gain of the State. "As a branch of national defence it contributes immense value, and has a higher claim to national subvention than the King's forces, which contribute nothing and cost so much." The enormous amount of underpaid, or unpaid, work which devolves upon the profession is well known, and is a large contribution to the welfare of the State. Under these conditions what is the duty of the State? The maintenance of the public health is now being recognised as the primary care of the State, and it is inevitable that the profession should become more and more the servant of the State. The organisation of the public health service must certainly lead to that result, but this will involve definite consequences. The function of the profession, its status, and its pay must tend to be regarded more and more as matters of public utility. The State must undertake the organisation of the prevention of disease and the cultivation of health, and the organisation of research for both these objects. Dr. EWART suggests, as measures to secure these, the institution of "a State examination to ensure the higher efficiency, and a Ministry of Public Health to undertake past responsibilities too long officially ignored."

There is no doubt much truth in the arguments adduced by this writer, and with the increased recognition of the duty of the State in the maintenance of the public health, and the prevention of disease, a large number of medical men must be employed directly for these objects of the State, and become State servants. But we should hope that the

day is far distant when the whole of the services of the profession will be commanded by the State and doled out to the general public, for this is what the Socialist would desire to be done. We have no hesitation in saying that such a system would not give the best results either to patient or doctor. The relation of doctor and patient must be one of personal sympathy and confidence, and such, we maintain, could not be secured by a State medical service.

RECRUDESCENCE OF PLAGUE IN SYDNEY.

THE new year has opened most unfavourably for Sydney, from the public health point of view. After a lapse of seven months, and at a time when the city was believed to be free from plague infection, our peace of mind has been rudely shaken, and three cases of plague, one in a young woman, the other two in men residing in two of the suburbs of Sydney, have been officially notified. Fortunately the case, which is of the bubonic type, is a mild one, and there is every hope of complete recovery.

The discovery of this case is a testimony to the careful attention of the resident staff of the Royal Prince Alfred Hospital, and to the extreme value of the modern methods of clinical pathology. The patient presented herself at the hospital with a swelling in the groin, which proved to be an abscess. This was opened under an anæsthetic, coverslip preparations of the pus were stained, and on microscopical examination of them bi-polar stained bacilli were found, the case thus proving to be one of bubonic plague. If this little procedure had been neglected, the case would in all probability have been not recognised, the focus of disease not discovered until perhaps the lapse of several days brought several other and more severe cases to light. But there is another side to the question.

While every care has been exercised for several months—we may say for some years now—to exterminate the rats and to examine them bacteriologically from time to time, the municipal council of the suburb in which this case occurred have not only been indifferent to the welfare of their neighbours, but have been almost positively defiant in their neglect to carry out the regulations of the Board of Health, which were published some three years ago, and which were designed to be adopted by all municipal councils with a view to prevention of the possibility of rats finding a harbourage in any building in the municipalities. It appears that this Council, though warned on several occasions of the state of the floors of the produce stores, have neglected to enforce the regulations which require the floors of these buildings to be rendered rat-proof. Even the particular building which has now been found to be infected with plague-rats, and which there is little doubt has been the source of infection in this new case, has been specially marked out, inspected on more than one occasion, and the necessary alterations have been urged. Yet to-day, in spite of all this, this store is found still in the same state. Who is to blame?

It is quite clear that there has been a gross neglect on the part of the local municipal council in not insisting upon the Board of Health's regulations being carried into practical effect. It is too late to close the stable door after the horse has been stolen. The disease has gained a footing in the municipality of Marrickville, and we can only hope that the municipal council will now be awakened to see the necessity of enforcing the regulations and insisting upon all stables and produce stores being rendered rat-proof. We do not want Sydney to again become famous in the eyes of the world as a plague spot, but this is inevitable unless every

council and every citizen makes strenuous exertion to destroy all rats and mice in their neighbourhood.

THE MONTH.

The Alleged Conspiracy of Medical Men in Western Australia.

As will be seen from a report on page 58 of our present issue, the verdict recently given, with £200 damages, against Drs. Irwin, Conolly, Sawell, and Bradford, of Kalgoorlie, W.A., for alleged conspiracy to damage Dr. R. F. M. Cameron in his practice, has been reversed on appeal to the Full Court. The matter is, however, not yet definitely settled, as a stay of proceedings has been granted to enable the plaintiff to appeal to the High Court of Australia. According to the judgment of the Full Court it was not proved that combination had been formed by these medical men with a view to injure the plaintiff in his practice, but with the distinct object of attempting to put down the practice of abortion by some medical men in the town. Two or more practitioners had perfect right to agree to refuse to meet in consultation or to associate with any medical man who is himself guilty of, or who associates professionally with others who are guilty of illegal practices, and on these grounds the verdict of the jury was reversed. As the case is still *sub judice* we refrain from any further comment at present.

Mr. Beale's Report on Drugs and Patent Medicines.

Mr. O. C. Beale's report as Royal Commissioner on secret drugs, cures and foods, which was presented to the Federal Parliament some months ago, appeared to some of the members as likely to do more harm than good if published and distributed broadcast. A committee of the medical members of the House of Representatives was therefore appointed to edit the report. This committee has now presented its report, and it suggests the omission and alteration of certain parts, and while refraining from criticising the method or language adopted by the Royal Commissioner, it considers that the possession of medical knowledge and assistance would have been an advantage. The very fact, however, that Mr. Beale is a layman, and that he has intentionally refrained from seeking assistance in framing his report from any

medical man, gives his report all the greater weight. No one can say that the report is the outcome of "jealousy" or "interested motives" on the part of the profession, and even if Mr. Beale has not presented his report in the refined and delicate language which some would think necessary for such a public document, the main end has been secured in exposing the evil and corruption which prevails everywhere, and the scandalous impositions made on the credulous public by the manufacturers and purveyors of many of the secret remedies and quack medicines.

Poison in Patent Medicines.

A case was recently heard by a bench of honorary magistrates at the District Court, Melbourne, under the Pure Food Act, in which a grocer of Carlton as nominal defendant was charged by an inspector of the Health Department with having sold a patent medicine called "Bonnington's Carrageen Irish Moss," which contained morphine. A regulation made on July 20th, 1906, under the Act, prohibits the sale of any medicine (other than one sold specifically) which contains one or more of the following substances or their derivatives:—Opium, belladonna, stramonium, nux vomica, cannabis indica, cocaine, heroin, chloral hydrate, bromides, sulphonal, trional, veronal, paraldehyde, or any other synthetic, hypnotic substances, or phenazonum, phenacetinum, acetanilidum, or any allied synthetic substances. Counsel for the defence explained that directly the summons was issued the manufacturers in Sydney, who had previously been unaware of this regulation, altered the prescription and gave instructions to their agents to withdraw the whole of the consignments in Victoria. It was stated that in a 3 oz. bottle there was only $\frac{1}{2}$ grain morphine. The Board of Health only pressed for a nominal penalty, and defendant was fined £2 with £2 2s costs. The result of this prosecution should have a beneficial effect in putting a stop to the sale of patent medicines containing powerful poisons, even though they may be present only in small quantities.

The Röntgen Rays in Medico-Legal Work.

No one can dispute the value of the discovery of the X-rays to medical and surgical practice, but the increasing frequency of the use of these methods as evidence in courts of law is not without its dangers to the medical

practitioner. The question of the propriety of a prescription given by a medical practitioner to his patient has often been disputed, and the same question now arises as to whether the X-ray photograph of an injured limb taken by a skiagrapher at the suggestion of the practitioner belongs to the patient or the doctor. At the annual meeting of the Medical Society of the State of Pennsylvania, Dr. Johnston deprecated the practice of giving prints to patients, and owing to the liability of misinterpretation, insisted upon the necessity in all cases of having an expert to interpret the plates. With this advice we must all agree, as it is very easy to raise a charge of malpractice against a practitioner on a faulty interpretation of an X-ray photograph plate. Medical practitioners would do well to take warning and insist on retaining in their own possession any skiagrams they may have had taken on their patients.

Saline Infusions.

It has become so common a practice to inject normal saline infusion into the subcutaneous tissues as a means of stimulating a failing heart that we are perhaps inclined to overlook the fact that this procedure has its limitations and dangers. Oedema of the lungs, watery diarrhoea, effusions into the serous cavities and collapse have been known to follow the use of this method of stimulation. According to Rössle, who writes in a recent issue of a German medical journal, a condition of heart muscle consisting in cloudy swelling of the muscle with increased friability has been found in a sufficient number of cases to enable him to assert with a fair amount of accuracy that a saline infusion had been given shortly before death. He records two cases in which he considers that the post-mortem showed a directly injurious effect of the infusions. The introduction of a large amount of saline fluid except after a severe hæmorrhage appears to favour the accumulation of serous fluid in various organs and tissues, and this cannot but be a source of danger in cases where the cardiac muscle is impaired or the elimination by the kidneys is defective. We should, however, be disposed to doubt the accuracy of Rössle's conclusions as to the direct effect of saline infusions upon the cardiac muscle, and to think that more probably the softening of the cardiac muscle was an antecedent condition and one which produced the clinical

symptoms to combat which the injections had been given. Nevertheless it is well to bear in mind that saline infusions should not be given recklessly.

Dispensing of Prescriptions by Chemists.

The *Medical Times and Hospital Gazette* of November 30th remarks that "medical men who do not dispense their own prescriptions will be much disquieted by the report issued by Mr. Teed, analyst for the city of London. He states that during the last quarter seven test prescriptions were sent to be dispensed. Of these, six were not made up in accordance with the demands of the purchaser, showing six-sevenths, or 85.7 per cent., of the prescriptions to be wrongly compounded. 'This state of things is very serious,' remarks Mr. Teed, 'for we are not dealing here with some petty profit secured by a dishonest tradesman who palms off margarine for butter or who waters his milk, but we have to do with matters of life and death. A large number of people, even in the medical profession, are of opinion that drugs are of little use, but from my recent experience I should doubt if they have ever been tried.' The moral is that general practitioners who are able to do so should dispense their own prescriptions both for the sake of their patients and their own reputation." It seems to us hardly credible that this can be taken as representing the true state of affairs, and we cannot agree with the suggestion of our contemporary that medical men should make it a rule if possible to dispense their own prescriptions. A dispensing chemist is nowadays required to spend some years in attending lectures and doing practical dispensing as well as passing examinations before he is qualified to register as a pharmacist. If all this study and experience is required to fit a chemist for dispensing doctors' prescriptions, it is absurd to suppose that medical men can be considered fully competent for this work after the comparatively slight training they receive in practical pharmacy. Not only so, but in most of the towns there are now qualified and registered pharmacists, and provided the pharmacists restrict themselves to dispensing prescriptions and not usurping the place of the doctor in undertaking to prescribe, we think it to be in the best interests of doctor and chemist that the latter should be entrusted with the dispensing of the doctor's prescriptions.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The ordinary meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on December 20th, 1907.

The vice-president, Dr. G. H. Abbott, presided, in the absence of the president. There were about 35 members present.

The CHAIRMAN announced the election of the following members:—Dr. Joseph Cohen, Sydney; Dr. Robert Edward Rygate, Grenfell; and the nomination of the following:—Dr. Martin Magill, Moree; Dr. James Houlihan, Morpeth; Dr. Henry Patrick Blaney, Gulgong; Dr. Richard Perkins, Marrickville; Dr. Norman William Hansard, Rylstone.

The minutes of the meeting held on November 29th were read.

Dr. J. M. GILL read a paper on "A Case of Cardiac Arrhythmia."

PROF. WELSH read a paper on "Immunisation in Cancer."

Dr. SAWKINS desired to thank Prof. Welsh for a paper which had been of particular interest to him personally, as he had himself been in a quiet way working at the same subject, and had for some time regarded the tumour-cell as the parasite of cancer. And since malignancy was only a question of degree or quality in tumours, this parasite-cell theory could be advanced to account for the occurrence of practically all new growths. All of the tissues of the body were capable of giving rise to tumours in this way under certain favouring conditions, and if the resulting growths were not sufficiently strong to overcome the restraining influence of the tissues in which they developed, and so remained local, they were spoken of as benignant tumours; but if they were capable of invading other parts of the body they were called malignant. Before tumour growth could occur, according to this theory, certain of the original tissue cells must undergo some mysterious process, whether resulting from continued irritation, from senescence, or other cause, whereby its specialised function of producing similar tissue cells, under control of the organism, became perverted, and what had been spoken of as "a desire for immortality" was aroused, together with an abnormal capability of conjugation with some other animal cell having the same number of chromosomes. Thus, if one might apply the term, the fixed parent tissue-cell, or somatic cell, might be looked upon as the maternal element, and some wandering cell, such as the leucocyte, as the paternal, and by the junction of these two a new cell—comparable to the fertilised ovum—was formed, capable of producing cells like the original parent or somatic cell, which became parasites on the rest of the organism. And these parasites, if they attained to malignancy, and invaded different parts of the host, always bred true. This means that what they had called the maternal element in the propagation of the parasitic cell was prepotent—was able to determine the characteristics of the offspring; so that if a malignant tumour arose, say in the epithelium, and invaded other tissues in the host, then the metastases were always of a similar type of epithelium. Coming to the question of treat-

ment, he would like to ask Professor Welsh if it would not be feasible to inoculate some large animal with the preparation from the mass removed by operation, in the hope of producing an anti-serum, which, on injection into the patient, might increase his resisting power to the new growth; or, if direct methods were adopted, to make a preparation of the healthy tissue of a similar type, from a similar species, rather than to use the parasitic cells of a new growth which had already caused the damage.

Dr. SINCLAIR GILLIES asked Professor Welsh what evidence there was to support the view that the conjugation of two cells was able to produce a new cell endowed with power of propagation. If there was evidence of such a union, a great advance had been made in determining the causes which favoured the occurrence of cancer.

Dr. J. A. DICK thanked Professor Welsh for his paper, which he thought gave them a gleam of hope that something might be accomplished in the near future in the prevention or, at any rate, arrest of growth of cancer.

Dr. LETHBRIDGE asked why Ehrlich attempted to explain immunity in one case on a different theory from the one he had previously advocated.

Dr. FLYNN asked Professor Welsh if there were any distinguishing signs between what would be the paternal and maternal cells in the process of conjugation which he had described. Was there anything corresponding to the extrusion of the polar globule in the ordinary fertilised ovum? May not it be possible that the somatic mitosis is restored after the manner of parthenogenetic development by the fertilisation of a somatic cell by something corresponding to a polar body of the germinal cells.

Professor WELSH, in reply, thanked the members for the kind reception of his paper. Dr. Sawkins referred to the fact that tumour cells always bred true. While that is true in the main, yet some recent observations by Ehrlich and Apolant on certain cancerous tumours in mice showed that after transmission through several animals the epithelial element became less prominent, and the growth became more sarcomatous, and the final result was a tumour partly cancerous and partly sarcomatous. In reply to Dr. Gillies, he said that the evidence in favour of a conjugation of cells for the formation of a cancerous growth was based on the work of Professor Farmer and his colleagues, who noted that in the early case of cancer the cells resembled reproductive cells in their nuclear divisions. They also noted that in the earlier stages of cancerous growth the cancer cells were invaded by leucocytes, and that an exchange of chromosomes took place. Walker observed that leucocytes were peculiar among somatic cells in dividing with a reduced number of chromosomes. In reply to Dr. Lethbridge, he could only reiterate Ehrlich's conclusions. While the mechanism of "atretic" immunity differs from that in immunity due to bacterial infections, it is, nevertheless, really based upon an extension of Ehrlich's hypothesis of nutritive receptors in relation to cell growth. Dr. Flynn's question could not be answered in the present stage of their knowledge of these processes.

West Australia.

The annual meeting of the Western Australian Branch was held in the Perth Hospital on November 20th, 1907. Present: Dr. Harvey (in the chair), Drs. Cleland, Seed, Anderson, Officer, Couch, Campbell, Saw, Tymms.

Ramsay, Thorp, Martin, and Blackburne. Dr. J. M. Y. Stewart sent an apology for absence.

Correspondence from Dr. Anderson reporting that he and Dr. Loly had attended the annual meeting at Exeter and received every kindness and consideration from the officials. It was resolved that the thanks of the Branch be accorded to Drs. Anderson and Loly for attending as delegates, and the secretary was asked to write to the President and General Secretary thanking them.

A letter was received from Dr. Belgrave covering a paper upon the management of subsidised non-government hospitals in Western Australia, and a sub-committee consisting of Drs. Seed, Ramsay, and Thorp was formed to consider this matter and report to the Branch.

Accounts to the amount of £29 6s 9d were passed for payment.

Drs. Campbell and L. Robertson were accepted as members by transfer from the New South Wales Branch.

On behalf of Dr. J. M. Y. Stewart, Dr. Tymms showed three cases of good recovery, in each of which there had been a gangrenous appendix with general peritonitis. Two females had been drained through Douglas' pouch, and a male through the loin. There had been no irrigation, and the patients had been kept in Fowler's position, and deep saline injections to rectum had been used. Also a case of fracture of the olecranon process with much separation. The operation was done two months ago and two months after the injury. Kangaroo tendon had been used to bring the parts together, and a good recovery ensued.

The Secretary's report was then read and accepted. It showed the average attendance for the year's meetings to have been 14.25 per meeting.

The report and balance-sheet were read and adopted.

Several pathological specimens were shown.

Election of office-bearers for 1908:—President, Dr. W. P. Seed; vice-president, Dr. E. A. Officer; hon. secretary, Dr. A. E. Martin; treasurer, Dr. J. B. Cleland; members of Council, Drs. Tymms, Saw, Anderson; auditors, Drs. Thorp and Leschen.

REPORTS OF OTHER SOCIETIES.

Western Medical Association, N.S.W.

THE semi-annual meeting of this Association was held at Bathurst on November 27th last. Proceedings commenced at 10 a.m. Dr. Machattie took the chair in the absence abroad of the president, Dr. Graham. Members present included Drs. Daish, Burkitt, Sturges, Cribb, Purchas, Brooke-Moore, Bassett, Busby, Hurst and the chairman. Visitors from Sydney were Drs. Rennie, Fourness-Barrington, and Clarence Read.

The CHAIRMAN, in welcoming visitors and members, thanked the former for coming so far at great inconvenience to themselves to read papers at the meeting, and expressed his disappointment at the small number of visiting members to meet them, which was most unusual at these meetings. He then called on Dr. Rennie for his paper on "The Significance of the Pathological Variations in the Reflex Actions."

This paper was discussed by Drs. Brooke-Moore, Daish, Machattie, Sturges, Burkitt, Read, Busby and Cribb.

Dr. RENNIE replied.

Dr. FOURNESS-BARRINGTON then read a paper on "The Operative Treatment of Retro-displacements of the Uterus."

This paper was discussed by nearly everyone present.

Dr. BARRINGTON replied.

Dr. BUSBY read notes of a case of double uterus, which was discussed by Drs. Barrington and Read.

After the adjournment for lunch,

Dr. READ read a paper on the lodge practitioners' defence fund, which was discussed by nearly all present.

The appointment of a laymen as "surgeon's assistant at operations" in a country hospital was brought before the meeting, and after a prolonged discussion in which all took part, it was moved and carried unanimously—"That in the opinion of this Association the appointment of a layman as surgeon's assistant at operations in a hospital where medical aid is available is inimical to the best interests of the public and profession."

This terminated the proceedings.

The visitors were shown the sights of Bathurst and afterwards entertained at dinner by the local committee, together with visiting members and others.

Medical Defence Society of Queensland.

THE annual meeting of this Society was held in the Technical College, Brisbane, on December 13th, 1907.

The minutes of the previous annual meeting were read and confirmed.

The SECRETARY then read the report of the Council for the year 1907. The principal items of interest were as follows:—

There had been seven new members elected and the Society had lost two, which left the membership at 71.

The Council reported that the legal proceedings which were being taken against one of the members at the time of the last annual meeting, had been dropped. All charges had been withdrawn and a full apology offered in court.

There had been less correspondence during the year than usual, and no case had been referred to the Council in which it thought the Society should interfere.

The credit balance of the Society stood at £201 3s 6d.

Drs. Brockway, Carvosso and Alex. Marks resigned their seats on the Council, in accordance with the by-laws, and offered themselves for re-election.

In the absence of Dr. Robertson (the treasurer), the secretary read the balance-sheet.

The PRESIDENT (the Hon. W. F. Taylor, M.D., M.L.C.), in moving the adoption of the report and balance-sheet, said he considered the Society could compliment itself on its position. He was surprised at the small number of members, and thought that if the benefits of being a member were placed before the profession more would join.

Dr. BROCKWAY, in seconding, agreed that the objects of the Society should be placed more forcibly before the profession.

Dr. LOVE thought that by printing the report and circulating it among the profession more would join.

There being no nominations for the vacant seats on the Council, the retiring members were elected unanimously.

After further consideration of the means of advancing the interests of the Society, the meeting closed with a vote of thanks to the office bearers.

A New Hospital for the Insane in New South Wales.—Among the contracts let last month was one by the Government Architect for the erection of the first pavilion in the male division of the hospital for Insane, which it is proposed to establish at Morisset, near Newcastle. This pavilion, which will provide accommodation for about 200 patients, will cost at least £10,122, which is the amount of the contract signed for last week by Messrs. J. Howie and Son.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Muscle and Tendon Transference.

Bradford and Soutter (*Boston Medical and Surgical Journal*, November 14th, 1907) contribute a paper based on an analysis of 36 cases, with periosteal insertion and silk strand elongation, including one case of silk suture elongation of the hamstring to the os coxae, and two cases of pectoral trapezius anastomosis.

This procedure in surgery has already won its position in the list of surgical methods, but as there is still much discussion in regard to the question of technic, the careful record of cases is at present desirable. The writers record their appreciation of the great value of the method of extending tendons by the use of silk strands. They wish to emphasise the necessity of the following points:—First, the avoidance of disturbance of tissues as far as possible; second, the necessity of thorough asepsis, not simply such as is ordinarily necessary in surgical procedures, but in the preparation of the skin.

Silk strands have been, as a rule, used after having been boiled twice; in some instances the second boiling has been in corrosive sublimate solution, in others the simple boiling has been employed. They have not found that any particular advantage has followed, as far as they can determine, the boiling in sublimate claimed by Lange to be essential. The dipping of the sterilised silk in solutions of celluloid has been used in one instance, and the method is open only to the objection of increasing detail. The patient's skin has in two instances been protected with the ordinary means of sterilisation by painting with iodine and afterwards by painting with a solution of rubber in ether over the field of incision. The latter was applied to one limb, and where the other limb was also operated on the ordinary means of sterilisation were all that were used. No perceptible difference was noted in this instance, and in the other cases the method was not used in order to avoid multiplication of details. Healing by first intention should be aimed at in all instances. It is desirable that the patients should be kept in a plaster fixation for as short a time as possible, plaster only being applied for a sufficient length of time to secure a healing of the skin incision and a reasonably strong tissue healing. After this the apparatus treatment should be begun, with apparatus devised in such a way as to prevent any strain upon the transferred tendon. Massage, muscle training and graded exercises are essential in the after-treatment for several months.

It cannot be claimed that a complete restoration to normal strength can be accomplished in tendon transference. In many instances little can be accomplished, as it is impossible to transfer muscles effectively if there are no strong muscles to be utilised; but in the larger number of cases considerable benefit can be obtained, and in a certain number surprisingly good results can be secured. Notes of 36 cases are given. The details of the operative procedure in all these cases varied but slightly. They were all performed upon cases with slight or no resistant deformity, beyond tendon-shortening and without great structural changes of tendon and muscular tissue. In all cases complete correction by force or tenotomy, or both, of the existing deformity was made before the muscle transference, with over-correction of the resistant cases. The silk strands were inserted by quilting in the divided tendon, which was cut off as low down as possible. As small

skin incisions were made as were feasible, but enough to expose adequately the muscle and tendon, and to enable the tendon to be transferred with as little of an angle of the transferred tendon as possible. The transferred tendon or strand was covered by fascia specially sewed over it, independent of the sewing of the skin incision. As a rule, no drain was placed in the wound, which was sewed up with catgut. The limb was placed in a moderately corrected position in a plaster bandage, and was not examined for 10 days or a fortnight. All apparatus was removed at the end of six or nine months after the operation.

The conclusions which the writers have drawn from cases of tendon transference is in accord with the experience of many other surgeons, viz., that tendon transference is a procedure which offers with a minimum of risk a chance of great benefit. In none of the cases reported were the patients not benefited by operation, either by an improved position or gain in functions. The immediate result in all was favourable, and the ultimate result in a number of cases remarkably good.

Skin Grafting without Anaesthesia.

Rose (*Medical Record*, November 16th, 1907) contributes an article under the above heading. He says skin grafting is generally considered to be a difficult surgical operation, requiring a general anaesthetic. In reality it is very easy, and it does not require any anaesthetic at all, not even local anaesthesia, except in rare instances. The preliminary preparations are few, the instruments needed are fewer, and failures to obtain satisfactory results are practically zero. Instead of being done only in hospitals by eminent surgeons, it can be easily and successfully done by the ordinary physician in his office or in the homes of his patients. It need not bear any resemblance to major surgery; in fact, it is minor surgery first, last, and all the time.

But skin grafting without anaesthesia is not of minor importance by any means. It is the most useful and practical healing agent we possess in cases where there is loss of skin and subcutaneous tissue, as in burns, ulcers, traumatic amputations, or following excision of tumours, carbuncles, etc. It heals these wounds in a small fraction of the time required by other methods, even if they are successful.

If it is used early enough, as it can easily be if grafting is done without anaesthesia, it prevents the formation of scar tissue, with its subsequent contraction. Thus when the denuded area is over a joint, deformity and disability may be easily avoided; when the loss of skin, etc., extends partly or wholly about a limb, as at the ankle or wrist, later contraction of the scar tissue and constriction of the circulation may be prevented; and when employed on the face and neck distortion of the features does not occur, and the skin covering obtained markedly diminishes the usual unsightly scarring.

When traumatic amputation of the extremities occur, with loss of skin extending to a greater or lesser distance beyond the line of amputation, it is not necessary to cut away bone and soft parts back far enough to get a healthy and complete skin flap. Just hasten the separation of the sloughing tissue and, as the areas clean up, graft them.

Ulcers anywhere, but especially those troublesome ones on the legs, and any granulating wound, may be quickly and easily healed by this simple method of treatment.

The cutting of a very thin graft, composed as it is mostly of the corneal layer of the epidermis, causes very little pain. There is no pain connected with the

spreading the grafts on the wound or in applying the dressings, so the pain caused by skin grafting without anaesthesia is quite insignificant. Yet, for hysterical adults, or for very nervous children, it may be best to take the grafts from a friend, or to use local anaesthesia, as ethyl chloride spray, ether, or ice, or to infiltrate the skin with a weak solution of cocaine, before attempting to remove the grafts. Covering the eyes of these patients with a bandage is often of use, so that they cannot "see the pain."

The following directions, if carefully followed, will give uniformly good results:—Clean the skin which is to furnish the grafts with soap and hot water, and thoroughly flush off with physiological salt solution (boiling water 1 pint, common salt 1 teaspoonful). It may be necessary to shave off the hairs if they are numerous, but hairs do not grow on these grafts. Alcohol alone is a perfectly satisfactory cleansing agent. Grafts should be taken preferably from the arm or leg on the same side as the wound. If the wound is a fresh one irrigate it with hot salt solution; see to it that all bleeding is stopped, and lay on the grafts at once. Grafts take readily on fat, muscle, connective tissue, periosteum, etc. If the wound contains tissue that must slough out, then hasten this process as much as possible. When it is desirable to avoid the formation of scar tissue, the grafting must be done as soon as the slough has separated. Do not wait till the whole area is clear, or for hollows to fill up, but cover the little areas of the wound as fast as they clear up every day, or every two or three days, as opportunity offers, until the whole wound has been completely covered. If the wound is already covered with healthy granulations, flush off with salt solution, and apply the grafts immediately. Do not cut down nor curette the granulations. Do not rub them, or scrub them, or level them; leave them alone. If the granulations are unhealthy, treat them assiduously till they are healthy.

The instruments needed are (1) a very sharp razor to cut the grafts with, (2) a flat ended probe or small curette to spread them with, (3) a rectangular block of wood 3 x 2 x 1 inches, or a good-sized glass syringe, to level and stretch the skin with. The skin having been cleaned, wet it with the salt solution and press an edge of the block down on to the skin and toward yourself, thus securing a flat, tense strip of skin of the desired width for the graft. The razor should be held as for shaving, with the blade at a slight angle to the strip of skin, and crossing it at right angles. Keep the graft thin by holding the blade almost flat on the skin, varying the angle as necessary, just to keep it engaged and no more. Remember the razor must be *very sharp*, there must be *no pressure* with the edge, the graft must be *very thin*—and just *keep on sawing*. A graft can easily be cut one inch to two inches wide, and as long as desired, by moving the block along from time to time, as necessary. Spread the graft directly from the blade. Drop some salt solution squeezed from a cotton wipe over the surface of the wound, then lay the edge of the blade against it, fix the end of the graft with the probe or curette against the wound or skin edge, and then withdraw the blade from under the graft in the direction desired. This spreads the graft almost perfectly. The edges of the grafts should be made to overlap one another, if possible, and also the edges of the wound. The dressing used by the author is as follows:—(1) A sheet of silver leaf is laid carefully over the grafts; (2) a lattice work of strips of silk protective tissue about half an inch in width, and long enough to extend an inch or two beyond the margins of the wound (these if applied wet with salt solution adhere to the skin when

dry and so fix the grafts firmly from all directions); (3) two or three thicknesses of gauze, either dry or wrung out of salt solution, and laid smooth; (4) a moist gauze bandage should then be laid very evenly and quite firmly over the grafted area, extending some distance above and below. This completes the inner dressing; (5) then an abundance of dry, fluffy gauze or absorbent cotton; (6) a splint of wood, or plaster of Paris, if necessary to prevent movement of the parts; (7) an outside bandage applied loosely over all. Dress the area from which the grafts were taken with silver leaf, gauze and collodion. Minute directions are given in the paper for subsequent dressing, and also reports of some cases.

The Surgical Treatment of Ulcer of the Stomach.

Kilian (Medical Record, November 23rd, 1907) contributes a short paper on the above. He says that until very recently the impression prevailed that ulcers of the stomach warranted or necessitated surgical interference only when they had reached the "accident stage," so to speak, namely, in cases of acute perforation or for uncontrollable hæmorrhage. This conception is utterly wrong, in two ways. There are, first, a number of conditions which allow of and necessitate surgical treatment, where the patients are not *in extremis*; and, secondly, the indication for operation in apparently uncontrollable hæmorrhage is exceedingly doubtful.

Welch says that 3 to 5 per cent. die alone from hæmorrhage. Gerhardt says as many die from perforation. Hauser finds that 5 to 6 per cent. become carcinomatous; while Leube gives a 2.4 per cent. mortality of the general death-rate.

The author deals first with those cases which apparently need operation most, namely, those with perforation or hæmorrhage. The acute free perforation of an ulcer into the peritoneal cavity, without any formation of adhesions, is extremely rare. Therefore operation for *indicatio vitalis* hardly ever becomes necessary. The question of operation for hæmorrhage is an open one, for while it sounds only natural and rational to operate in a case where there is very severe hæmorrhage from an ulcer, operation becomes really necessary very rarely, because even in extreme cases where the hæmorrhage is so severe that it seems as though it must unavoidably lead to death, the bleeding stops just before the critical point, as soon as the patient passes into deep collapse. The other indications for the operative treatment of ulcer are uncontrollable, violent pain, inflammations with or without pus-forming adhesions, the formation of scar tissue with symptoms of stenosis, and a suspicion of malignant degeneration. The best observers in medical and surgical clinics have finally reached a conclusion that a patient with ulcer who has been subjected to one or several systematic courses of rational medical treatment, with very little if any improvement, or who suffers from recurrence again and again, ought to be operated upon. The operation for ulcer of the stomach is *gastro-enterostomy*. All other forms of operation, as the pyloroplasty, excision, resection, and so on, endeavour to treat the ulcer *per se*, by removing it or otherwise. On the other hand, gastro-enterostomy tries to form anatomical conditions which partly overcome mechanical difficulties, partly set the stomach at rest, and give the ulcer a chance to heal. The real *circulus vitiosus* of the ulcer is hyperacidity, dilatation of the stomach, motor insufficiency, pyloric stenosis or spasm, all working into each other's hands, and thus producing the unfortunate clinical picture of violent pain, vomiting, inability to empty the stomach of its contents,

difficulty in feeding, inanition, and so on. All these conditions are changed immediately, or, at least, after a very short time, if gastro-enterostomy is performed, for this permits of the propulsion of the contents of the stomach into the gut and prevents stagnation, fermentation, and stretching of the walls of the stomach by dilatation and spasm.

The death-rate of gastro-enterostomy for ulcer does not exceed 3.5 per cent., and as a rule only the worst cases of ulcer are operated upon; the mortality of this type of ulcer if not operated upon is at least 30 per cent.

THERAPEUTICS.

The Therapeutic Value of Apomorphine Hydrochloride.

Fisk (*Medical Record*, September 28th, 1907) remarks that in poisonous doses apomorphine first excites the cerebral centre, producing delirium, followed by depression and paralysis of the respiratory centres. The accelerator fibres in the vagus are stimulated, causing increased rapidity of the pulse. There is an initial period of lowered blood pressure, due to direct action on the heart muscle, an intermediate period of increased pressure, and finally a period of lowered pressure due to the action on the heart muscle. He then summarises its therapeutical effects as follows:—1. The effect of apomorphine hydrochloride, when administered by the mouth, is widely different from the hypodermic effect. 2. Hypodermically it is a most valuable centric emetic in doses of $\frac{1}{10}$ to $\frac{1}{4}$ of a grain, acting speedily, certainly, and gently, even in cases of narcotic poisoning prior to the stage of coma. The average adult dose is $\frac{1}{10}$ of a grain. It is also recommended to be tried in all cases where hypnotics or antispasmodics are indicated, in doses preferably somewhat less than the emetic dose, depending upon the tolerance of the individual, i.e., $\frac{1}{20}$ grain or more. 3. When given hypodermically to children or debilitated subject the possibility of its depressing effects should be borne in mind, and appropriate doses of strychnine simultaneously administered. 4. By the mouth its centric effects are so uncertain as to render it useless as an emetic, and of little value as an hypnotic. The effect is practically limited to expectorant action. Average adult dose $\frac{1}{4}$ grain every two to three hours dissolved in syrup of wild cherry or syrup of lactucarium, with a few drops of diluted hydrochloric acid to ensure solution. 5. It does not increase the effect of other narcotics, such as morphia, codeine, or heroin, which may be simultaneously administered when it is desired to lower the excitability of the respiratory centre without checking secretion. Strychnine may also be simultaneously administered in debilitated subjects for its stimulating effect on the respiratory centre, and to forestall possible depression, although even in the case of delicate children, there is little fear of such depression from the administration of the pure crystalline preparation by the mouth. 6. Apomorphine, like other expectorants of its class, if used at an improper stage, when there is abundant secretion, or pushed to the extreme, may flood the bronchial tubes with mucus and drown the patient in his own secretion, especially if he lacks muscular power to expectorate. Such results, however, are not to be feared from an intelligent use of the remedy. 7. Crystalline apomorphine hydrochloride should always be specified. There is a slight danger of adulteration with morphia if the drug is not thoroughly washed when manufactured. On general principles, the pure preparation should be used if possible, but a greenish discolouration of tablet or solutions does not necessarily

contra-indicate their use, especially if originally prepared from the pure crystalline salt by a reliable firm.

Alcohol Injections in Neuritis and Neuralgia.

Fischler, in an article in *Munch. Medizin. Wochenschrift*, abstracted in the *Journal of the A.M.A.*, October, 1907, extols the value of this method as a substitute for removal of the Gasserian ganglion, as the toxic degeneration that follows the injection answers practically the same purpose as the operation. His experience confirms the possibility of subsequent toxic degeneration of the nerve, and shows that on that account the method should not be applied to motor or mixed nerves, except as a last resort. He treated 12 patients with severe sciatica by local injection of alcohol, and 8 were either entirely or nearly cured, but one patient developed complete paralysis of the peroneal nerve, which persisted complete for nine months and then gradually subsided in the course of the next three months. Each had similar experience in three cases. In three out of these four cases of degeneration the symptoms gradually retrogressed, but the return of the neuralgia kept pace with this. With all its advantages, then, the method has its drawbacks. The experiences with trigeminal neuralgia were all favourable. The six patients with long rebellious supra-orbital and infra-orbital neuralgia were cured. The injection gave no relief in a case of amputation neuroma.

EAR, NOSE AND THROAT.

Differential Diagnosis of Tuberculosis, Syphilis and Malignant Disease of the Larynx.

Horne (*Journal of Laryngology*, November, 1907) submitted an interesting paper on the above subject for discussion in the section of Laryngology and Otology of the British Medical Association, July, 1907. The author approached the subject for discussion from the standpoint of the exclusion of tuberculosis, the scheme being one of elimination, and the most practical way of arriving at a positive diagnosis of cancer. The discussion did not concern typical and uncomplicated cases of tuberculosis, cancer and syphilis, but intrinsic disease of the larynx in its earliest stages.

Before examination of the patient the author thought it advisable not to put the patient to a lengthy inquiry into the history of his case or on account of his symptoms, preferring to have these details from the patient's medical attendant, to allow the larynx complete rest as far as possible before examination. Before proceeding to a laryngoscopic examination he would put four important questions for consideration:—1. Pain: Is it constant or intermittent? In cancer, pain is an early symptom and is continuous. At first it is located to the larynx, afterwards radiating to the ears; whereas in tuberculosis and syphilis, pain is often absent when the larynx is at rest. 2. Vocal function: Has it been impaired previously, and, if so, after what interval of immunity was there recurrence? Hoarseness or impairment of vocal function for a long period is not against malignant disease, but a recurrence of impairment of vocal function after an immunity is consistent with a recrudescence of tuberculosis when perhaps the disease in the lungs has become arrested. In tuberculosis the voice is weak—a whisper—rather than hoarse; whereas in cancer and syphilis the voice may be strong though hoarse. 3. Is there evidence of fibrotic degeneration?—condition of urine? Fibrotic changes in other organs would point to syphilis, malignant disease or pachydermia, rather than to tuberculosis. 4. Has the larynx recently undergone any

local treatment? Any previous local treatment by drugs, cautery, or cutting forceps would spoil the appearance of the parts for an independent opinion.

For consideration of the objective part—the laryngoscopic examination—the author arranges the cases in four groups:—1. Cases in which there is only congestion of the laryngeal mucosa, and perhaps impaired mobility of a vocal cord. The congestion may be patchy and limited to only one part, or diffuse and involving both sides. The paresis may be bilateral. 2. Cases in which there is (in addition to congestion and impaired mobility) some tumefaction, if not a definite tumour or excrescence. 3. Cases in which, in addition to congestion, impaired mobility and tumefaction, there is ulceration. 4. Cases in which there is external evidence of disease, such as glandular enlargement.

In discussing groups 1 and 2 the author points out that in the earliest stages of tubercular and malignant disease there are fundamental changes in the larynx—congestion, tumefaction and paresis—and to differentiate these changes he would have it that a minute knowledge of the histology of the larynx is essential, and particularly the distribution of the two varieties of epithelium—the columnar and tessellated—lining the larynx, also a knowledge of the site of transitional epithelium. He reminds us that the laryngeal epithelium presents striking contrasts at different stages of life, such as in the fœtus, infancy, adult life, and advancing years, and explains the relative frequency of intrinsic disease in the male as compared with the female subject.

The author points out that the part of the laryngeal mucosa which is richest in glandular structure and covered with columnar epithelium is most vulnerable to tuberculous infection, whereas the part that is covered with squamous epithelium is relatively free from glands, and so immune against tuberculous infection, except by continuity at a later stage of the disease. Epithelioma is the most common form of intrinsic disease of the larynx, and attacks those parts of the ventricular bands and vocal cords which are covered with squamous epithelium—the sites of transitional epithelium. All these parts, the author states, can be well defined. Therefore, he goes on to say, to arrive at a differential diagnosis between tuberculosis and epithelioma it is essential to localise the site of origin. Cases may be met with where the congestion may be so diffuse as to involve one or both sides of the larynx. To reduce this congestion Horne applies cocaine and adrenalin by means of a drop syringe in preference to a spray. Having, therefore, by these means located the site of origin, he says it is possible to arrive at a diagnosis. Another important point in the early differential diagnosis is the impaired mobility of one or both cords. Horne points out that cell proliferation and infiltration in varying degrees is common to all three diseases, and, therefore, impaired mobility is not peculiar to malignant disease. In tuberculosis the paresis is less marked than in cancer, and is brought about by a myositis, secondary to bacterial invasion, and not to a cell proliferation, as in cancer. Further, that impaired mobility of the cord is of value as evidence of malignancy in those cases in which the disease presents a well-defined tumour or excrescence, which may be mistaken for a benign neoplasm, also evidence of the extent of growth beneath the epithelium. And, again, when the growth is deep-seated, fixation of the cord may be the only clinical feature observable in the larynx above the level of the glottis when there is a tumour or excrescence present. The author again refers to the site of origin as assisting in the diagnosis, unless the tumour arises at the site of

transitional epithelium, such as a vocal process. At this stage, Horne briefly considers pachydermia laryngis, and states that pachydermia should be regarded more as evidence of disease than as a disease in itself, and that the condition may be brought about by syphilis, or tubercle or malignant disease acting as irritants inducing a hyperplasia, followed by a metaplasia of the epithelium with the formation of the clinical appearances of pachydermia. Here, also, the cause must be excluded.

The author refers to the case of the late Emperor of Germany in illustration of this point.

The question of the advisability of removing a portion of the growth for microscopic examination is discussed; and Horne agrees with others that unless the patient is prepared to submit to an operation for removal of the disease, in the event of the examination being positive, the patient should not be advised to undergo the exploratory operation. The method of removal of a portion of growth from the larynx is discussed, and the proper forceps for the purpose are described.

In considering the third group of cases, in which there is ulceration, Horne states that at this stage of tubercular disease of the larynx there would be marked changes in the lungs, with perhaps cavity formation, and that an old focus in the lung would probably be disclosed by a Röntgengraph, where other clinical methods had failed to do so.

In the fourth group of cases, in which there is glandular enlargement, it is pointed out that this condition would probably mean malignant disease of the larynx, but would not exclude the possibility of tuberculosis; for Horne has found that when the disease has become arrested in the lung, but from any cause has been lighted up again in the larynx, then there is danger of the cervical lymphatic glands being infected, and more particularly so if the larynx has been subjected to active local treatment.

Having eliminated tubercle from the diagnosis, Horne now advises large doses of iodide of potassium to arrive at a diagnosis between syphilis and cancer. As an additional aid in the differential diagnosis in connection with cancer of the larynx, the author points out that transillumination is particularly useful for the examination of larynx below the level of the cords. He uses a double lamp, such as is used for transillumination of the frontal sinuses. He places the lamp on either side of the thyroid cartilage, and so obtains a view of the subglottic region in the laryngoscopic mirror.

Dr. Horne is of opinion that the value of the opsonic index in the diagnosis of malignant disease will not be of much service, and makes no mention of the value of tuberculin as a means of diagnosis. Dr Horne concludes his lucid and masterly paper thus:—"We are dealing with the three most dreaded diseases of the larynx; all three are amenable to arrest, if not to cure. The differential diagnosis of these three diseases might well be a chapter in itself in any text-book; their respective treatment is diametrically opposed to one another, and accuracy in diagnosis is half the cure. All three are so insidious in their onset that they would seem to have no beginning, and yet so progressive in their character that an early examination is the only hope of saving the larynx from becoming a most veritable citadel of misery."

At this meeting of the Association Sir Felix Semon also read a paper on the same subject as an introduction to a discussion. A lengthy and valuable discussion ensued. The papers and discussion are worthy of careful perusal by any one interested in this very important subject.

MEDICAL MISCELLANY.

An annual appropriation of 200 has been voted by the Mexican authorities to the International Marey Institute, whose aims are to render uniform the methods of experimental physiology and in general to promote this science in every way. A similar appropriation was voted some time ago to the School of Tropical Medicine at Liverpool. The appropriations confer the right for a delegate from Mexico to occupy a place in the laboratory.

On July 31st a brilliant farewell was given to Prof. Ernst von Leyden, of Berlin. The lecture-room of La Charité was profusely decorated with symbolic flowers and palms. The audience was composed of representatives of the Government in uniform, delegates of the Academy of Medicine, medical societies, von Leyden's staff, prominent men in the scientific world, like Fraenkel, Kraus, Lazarus, Bier, and many other foreign physicians and students. The ceremony began at 10.30 a.m., and ten short speeches were delivered. Then the venerable physician with a tremulous voice delivered his oration. At the age of 76 Professor von Leyden retires from the "cathedra," but not from the direction of the Cancer Institute nor from his private practice, as he is honorary physician to many of the European courts. His career and activities have been most phenomenal. He began as an assistant to the late Professor Traube, and then became a military surgeon. Dr. Leyden was the initiator and founder of the congresses for the study and relief of tuberculosis, and also the initiator of the sanatoria for consumptives. He was the first to discover in the sputum of asthmatics the octahedral crystals, technically known as Leyden's crystals. His most recent, and in all probability his last discovery, relates first to the treatment of typhoid by serum injections, and second, to the question of carcinoma. The latter deals unfortunately with the etiology and not with the treatment of the disease, and his theory can be formulated as follows:—"From the liver of cancerous patients a substance has disappeared that can be found in the liver of normal subjects." Believing that his discovery embraces the probable cause of carcinoma, he will devote the rest of his useful life to investigations in the field of malignant tumours.

According to the press despatches, the efforts to restrict the habitual use of opium in China are being pushed with considerable vigour. The names of several princes and other high officials are given who it is alleged have been suspended from their court positions for failure to give up the drug during the six months allowed by the Imperial decree of last year. This provided that functionaries who are not able to abandon the habit during the prescribed period would be allowed to retain their rank, but would have to retire from office. Those who should falsely pretend to have abandoned the drug and continue to use it in secret would lose both rank and office.

The physician in attendance during the last illness of a wealthy Chicago woman who died several years ago in California has been awarded a verdict against the estate for £100,000. The claim was made in virtue of a contract made with the patient that he should attend her until the time of her death and should then receive \$100,000 by her will. The physician had given all his time to the patient during several years, and the jury allowed the full amount sued for.

The unpopularity of prunes as a staple of boarding-house dietaries will probably be still further increased through the newspaper announcement that an eminent French scientist has declared that there is a connection between the use of prunes and baldness. The "professor" is stated to have discovered a new kind of microbe which flourishes in prunes and figs and other dried fruits, also in the human hair and in the feathers of certain birds, notably parrots. This parasite, while not definitely causing the hair to fall, is alleged to predispose to baldness.

In one of the Berlin theatres a play was produced with the title "For the Sake of Humanity," and intended to excite interest in the anti-vivisection propaganda. One of the two authors is a Berlin physician. The play has, as its leading character, a worker in experimental medicine, who in one episode said to be reminiscent of Irving's nightmare scene in "The Bells," is haunted by a dream in which he sees the spectres of his experimental subjects.

From official figures compiled under the direction of the French Ministry of the Interior, of the total number of insane in the French asylums and the proportion due to alcoholism, it appears that out of a total of 71,551 inmates, the insanity of 9932 was credited to alcoholic excesses, a percentage of 13.88; 7062 were males, 2870 females. In 3008 alcohol was said to be the sole cause; in 3235 there was also a complication of mental weakness or degeneracy or alcoholic heredity, and in 3639 alcoholism combined with other causes. It was sought also to ascertain the form of alcoholic excess, with the following result:—1,537 individuals were absinthe habitués; 2631 used wine, and in 3345 the insanity was credited to the use of various alcoholic drugs ("aperitifs") or liquors. These figures, while carefully compiled, are, after all, incomplete, as the *Semaine Médicale* says, since they take no account of the cases of insanity due to ancestral alcoholic excesses, but not presenting characteristic signs of this etiology.

The Syracuse University in New York had the formal opening of its great new stadium, which has been in the course of erection for the past two years, and which represents an outlay of 600,000 dollars. The aim of the University authorities is to have the most complete athletic plant in the world, and with this end in view a gymnasium costing 400,000 dollars will be built at the east end of the stadium. This large expenditure for the promotion of athletics has been rendered possible by the generous gifts of John D. Archbold.

On August 1st, Dr. William Bayard, of St. John, N.B., celebrated the seventieth anniversary of his graduation in medicine from the University of Edinburgh. The members of the local medical associations took part in making the day a memorable one for Dr. Bayard, who is now 93 years of age, but is in good health and recently performed an operation. At its last commencement the University of Edinburgh conferred on Dr. Bayard the honorary degree of LL.D.

By order of Dr. Samuel G. Dixon, Health Commissioner of the State of Pennsylvania, porters are forbidden to brush the clothing of passengers in the aisles of railway cars. It is also required that sheets in the berths of sleeping cars shall be sufficiently long to turn over the upper end of the blanket at least two feet, so as to prevent the blanket from coming in contact with the face of the occupant of the berth.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The London School of Clinical Medicine—Oxford University—London Statistics—The Creighton Memorial Lecture—The Root of Plague—St. John Ambulance Association—Alcohol and Genesis—Increase of Insanity—The London Hospital.

THE second winter session of the recently established London School of Clinical Medicine was inaugurated on October 8th at the Dreadnought Hospital by an address delivered by Sir Richard Douglas Powell on the value and importance of post-graduation, hospital work and study. The chair was occupied by Mr. Percival Nairne, chairman of the Board of Governors of the Seamen's Hospital Society, and the large lecture room of the school was quite filled by a representative audience. In opening the proceedings the Chairman referred to the fact that though this was the first inaugural ceremony connected with the London School of Clinical Medicine, it was the opening session of the second year of the school's existence. It had been thought wise to defer any formal proceedings until the school was firmly founded; and a year ago, when work was first commenced, there still remained so much to be done in the way of administrative detail, in making the school known, and in other minutiae of organisation that the plan was adopted of getting the arrangements perfected as quietly as possible. In the course of that year so much had been accomplished and the school had shown such good promise of a successful career that the school committee felt justified in asking the friends of the hospital and others interested in the scheme to join with the staff in emphasising the importance of the opening of their second winter session; and it was no small compliment to the school that the progress so far achieved had so commended itself to professional opinion that Sir Richard Douglas Powell, President of the Royal College of Physicians of London, had consented to give it the *cachet* of his influential support by coming to deliver to them their first introductory address. Mr. Nairne alluded to the structural alterations which had been made in the hospital for the accommodation of the school, and stated that everything was now so complete that each department of work could be carried on satisfactorily and in an up-to-date manner. No doubt more remained to be done; but that must come gradually, and he felt little doubt that the success which the school seemed likely to attain would be a repetition of that achieved by the sister institution the London School of Tropical Medicine. If so, the staff would find, as the staff of the Tropical School had found, that the Board of Management was willing and ready to support their endeavours to make the hospitals of the Seamen's Society as fully useful both to the sick sailors and to the profession as possible by providing for the requirements of the school's growth and development. He was glad to know from the Medical Superintendent that already this session between 60 and 70 names of students had been enrolled, and he was specially pleased to be told that in all probability this year the school would be able to pay its way. If this prophecy were fulfilled, he ventured to think the achievement would be both remarkable and satisfactory. Sir Douglas Powell devoted his address to a consideration of the needs of the post-graduate and the facilities which could be commanded in this country for meeting these requirements.

He pointed out that, until comparatively recently, the medical profession in Great Britain and her colonies had to seek any post-graduation instruction they might desire in Berlin, Paris, or Vienna. Now things were different, and within the past few years several schools had been established in London and not a few in the provinces. All were more or less flourishing, and a few had become conspicuously successful. The latest comer, so far as London was concerned, was the London School of Clinical Medicine, whose students and supporters he was pleased to have an opportunity of addressing. He emphasised the facts that the Dreadnought Hospital was specially rich in clinical material of varied nature; that the opportunities for pathological research and operative surgery were quite exceptional; that the affiliation of the Dreadnought with other hospitals provided opportunities for practical study in every branch of medicine and surgery; and that the enlightened policy of the Board of Governors had provided so well for equipment that most of the modern inventions and methods for scientific inquiry and investigation were provided for the use of the school. Sir Douglas Powell then proceeded to illustrate the special clinical opportunities which, from the medical point of view, the Dreadnought Hospital afforded for the study of diseases of the cardio-vascular system. The nature of a seaman's occupation, the habits to which he was too often addicted, and the climatic vicissitudes to which his work exposed him, combined to form a comprehensible explanation of why he suffered so frequently from valvular disease of the heart, angina pectoris, aneurism, arterio-sclerosis, and other allied affections. Finally, he commended the school as one in which interesting cases, beside opportunities, and a comprehensive scheme calculated to provide adequately for almost every professional educational requirement would be found by those who sought to rub up their knowledge or to prepare for the higher examinations. A vote of thanks to the lecturer was proposed by Sir Dyce Duckworth, seconded by Mr. Malcolm Morris, and carried with acclamation.

A special Convocation was held at Oxford on September 30th for the purpose of conferring the honorary degree of Doctor of Science upon a number of foreign representatives who were attending the centenary of the Geological Society in London. The recipients of the degrees met in the hall of Magdalen College and walked in procession to the Sheldonian Theatre, where they were presented to the Vice-Chancellor by the Professor of Natural Philosophy. He introduced Professor Barrois, of the University of Lille, as one of the most distinguished of French geologists, who had made out the relations between the rocks formed by volcanic eruptions and those laid down in shallow seas that once covered parts of what is now France. Professor Heim, of the University of Zurich, was referred to as the originator of modern theories on the mechanism of the elevation of mountain ranges. Professor Lacroix, of the Museum of Natural History, Paris, was spoken of as a conspicuous scientist who four years ago was despatched by the French Government to investigate the great eruption of Mont Pelée, and whose sagacity was crowned by a triumphant success in the discovery of the nature of the burning clouds. Professor Penck, of the University of Berlin, was described as the most brilliant exponent on the Continent of the history of the last great period of intense cold through which the earth had passed, and at the end of which man first made his appearance on the earth. Professor Zirkel, of the University of Leipzig, was introduced as the

founder of that branch of natural science which is concerned with the systematic study of the composition of minerals and rocks, for he first used the microscope for the purpose of this study. Doctor Ludwig Mond was presented as the man who had succeeded in devising, one after the other, various processes for recovering the by-products of chemical combinations, and who had founded and endowed in London a great research laboratory named after Humphrey Davy and Michael Faraday. It will be remembered that in May last a public meeting was held in London and a fund inaugurated "to enable the University of Oxford to continue its great and beneficent work in the cause of national education," and it was resolved to invite the assistance of all Oxford men and the public at large in the endeavour to raise a minimum of £250,000 "to enable the University to meet the more pressing demands upon it," and "to maintain unimpaired the pursuit of the older learning, while satisfying the ever-increasing and costly demands of modern scientific training." The committee, which was then appointed, has been busily at work ever since, and has now issued to all members of the University, past and present, a circular letter containing a summary of the more pressing needs of the University, a statement of its financial position, and notes on its academic history, "in order that those whom we invite to subscribe may have a clear idea of the present position and requirements of the University, and of the precise object for which this fresh endowment is sought." It is to be hoped that this appeal will evoke the active and generous assistance of every graduate of the ancient University, as well as of other benefactors who recognise how worthy a cause it is for which the Chancellor and his committee plead. Contributions may be sent either to the Chancellor of the University, at 1 Carlton House Terrace, London, S.W., or to the Vice-Chancellor, Oxford, or to the secretary of the fund, at 25 Victoria-street, London, S.W., from whom papers and forms may also be obtained; or they may be paid to the London Joint Stock Bank, Princes-street, London, E.C., or to the Old Bank, Oxford.

The 17th volume of "London Statistics," recently issued by the London County Council, contains an extensive variety of information bearing upon the sociological and commercial development of the administrative County of London. The report states that the London Parliamentary electorate numbers 686,994, and at the last general election 485,718 voted, 538, or 0.11 per cent., being described as illiterate. The county electorate numbers 840,730, of whom 466,421 polled at the last election. In the borough elections only about half those who had the opportunity to do so voted, 366,720; while in the guardians' election the number was 168,089, or 28.1 per cent. It is estimated that the present population of Greater London is 7,217,939, and of the administrative county 4,758,217, compared with 6,606,163 and 4,544,870 respectively at the census of 1901. Some interesting figures are given in the marriage statistics. The most popular age for men marrying is 25, the figures for that age totalling 12,958, and at 21 they number 12,735. At 21, 15,848 women married, and at 25, 9508. Altogether there were 34,931 marriages between spinsters and bachelors. In 1905, the last year for which figures are available, the births in the county totalled 126,559 (64,149 males and 62,410 females), compared with 130,095 in the previous year, and giving a rate per thousand living of 27.1. The county's death rate in the same year was 73.002, the rate per thousand living being 15.58—16.36 for males and 13.85 for

females. Employees registered under the Factory and Workshops Act totalled 562,129. A million and a-half of the county's residents are returned as unoccupied. The total number of paupers receiving relief on January 1st, 1906, was 148,629, compared with 138,276 in the previous year. Poplar possessed the largest number of paupers, 11,958; Islington had 10,685; and Hampstead had the least number, 871. The police of the metropolitan and city forces had charge of an area of 700 square miles; the former, with 186 stations, policing an area of 699.42 square miles, with a population of 6½ millions, and a ratable value of nearly 51 millions; while the city men, who have six stations, patrol 1.05 square miles, on which there is a population of 28,923, and a ratable value of 5½ millions. The larger force consists of the commissioner, three assistant commissioners, 31 superintendents, 546 inspectors, 2239 sergeants, and 14,394 constables, having an average daily strength of 15,043, a proportion of 1 constable to 470 of the population, and costing £1,581,688 per annum. The five London prisons received 63,963 prisoners during the past year, and the cost of the prisons was £102,163. The county's 967 public elementary schools provided effective accommodation for 721,673 scholars, and had an average attendance of 663,371. The railways of Greater London have a mileage of 656.4 and 586 passenger stations; tramways cover 400.59 miles, 2964 horse buses are running, and 783 motors. The total passenger traffic on all these routes in 1905 was 1,074,505,420. In the port of London 27,323 ships, with a tonnage of 17,602,315, entered last year, and 27,733, with a tonnage of 16,534,316, cleared; 1891 steamers and 1418 sailing ships were registered in the port. London is estimated to contribute £22,470,300 to the Imperial taxation, 18.8 per cent. of that of the United Kingdom, while its local expenditure in 1905 was 22½ millions.

The inaugural Creighton Memorial Lecture was delivered in the Botanical Theatre of University College on October 4th by Dr. T. Hodgkin, who chose for his subject "The Wardens of the Marches." Sir Arthur Rücker, Principal of the University of London, occupied the chair, and in opening the proceedings made allusion to the circumstances under which the lecture had been founded. He referred to the late Bishop Creighton as a man of great learning, who was also a distinguished prelate. He occupied the front rank of men as a historian, and it was therefore fit and proper that something should be done in the world of learning to keep his memory green. It was hoped that the money which had been raised for the purposes of a commemoration fund from the family and friends of the late bishop would form such a nucleus as would enable the University to replace by-and-by the annual lectureship by a permanent professorship. Before delivering his lecture, Dr. Hodgkin paid an eloquent tribute to Bishop Creighton's memory, who, he said, desired no better epitaph than "He tried to write true history." His lecture dealt with the history of the Border country from the early part of the 14th century to the union of the kingdoms of Scotland and Ireland. He said that the duties of the Warden were chiefly the repression of lawless outrage, and that the Wardens were chosen principally from the Scottish families of Douglas, Kerr, Home, Scott and Maxwell, and from the English families of Percy, Neville and Dacre. He described the blood feuds, the raids, and the cattle-lifting which went on in that part of the country down to the times of Queen Elizabeth, and referred to the March Assizes which were held. At the conclusion a vote of thanks was accorded Dr. Hodgkin, on the pro-

position of Professor Sir John Laughton, seconded by Professor Pollard.

The opening address of the winter session of the London School of Tropical Medicine was delivered by Sir Lauder Brunton on October 21st. The date was somewhat late for an introductory ceremony, but circumstances connected with the work of the school and also with the engagements of the orator made it impossible to fall into line with the other teaching institutions of London and get through the formal inauguration of work at the beginning of the month. After reminding his hearers of the great progress made in dealing with malaria and yellow fever since the discovery that such diseases were communicated by mosquitoes, Sir Lauder Brunton alluded to sleeping sickness, which had already devastated large parts of Africa and threatened to do worse. The only chance of stopping it lay in destroying the fly that caused it. A thorough study of the insect and its habits was needed, and indeed the same remark was true of other flies; and he urged that the Government should establish an institute of Pathological Entomology, well endowed, and having attached to it men who could carry on original investigations. Malaria and sleeping sickness were of Imperial importance, but they did not directly affect the health of taxpayers in this country. There was, however, a disease which might at any time do so. He alluded to the plague, which was working havoc in India and almost depopulated Europe in the 14th and 17th centuries. Although the plague originated among rats, those animals did not as a rule communicate it directly to man. It seemed demonstrated beyond the possibility of doubt that, although infected food might transmit the disease, fleas were the main agents. Cases of plague arrived from time to time at the port of London. Precautions were taken to isolate them; but rats might be infected, creep along ropes to the shore, and there, by infecting other rats, begin a pestilence. It was folly to allow rat and flea infected districts to exist in East London, which was in daily danger of being attacked by plague. It was extraordinary, but true, that such minute and despised creatures as fleas were a national danger.

The annual report of the Central Executive Committee of the St. John Ambulance Association, recently issued, states that large numbers of classes continue to be held for the benefit of the county constabulary and borough police forces and the metropolitan police. The figures regarding street accidents in London show that every encouragement should be given to the efforts of the members of the Metropolitan Streets Ambulance Association and others who for so long a time past have been persistently moving in this direction. "The great increase in motor traffic of all kinds involves a corresponding increase in the dangers to which pedestrians are liable; and though it is true that first aid may frequently be rendered on the spot, it is admitted by the most competent judges, the hospital physicians, and surgeons of London, that there is great room for improvement in the mode of conveying the injured. It is satisfactory to record that a praiseworthy beginning has been made in the city itself by the provision of an electric ambulance carriage of an excellent pattern and the contemplated provision of some 50 first-aid boxes in various parts of the city area, but much still remains to be done in the other portions of the metropolis which are not under the control of the city police authorities." Reference is made to the progress and extension of ambulance classes in the railway world and in various industries. Regarding correspondence with the War Office with

respect to this Association, which is the Ambulance Department of the Grand Priory of the Order of the Hospital of St. John of Jerusalem in England, taking over the administration of the home military hospitals and the supply of the greater portion of the medical and surgical staff and of quartermasters and other ranks in time of war, the committee states: "If by means of the assistance of the officers and men of the St. John Ambulance Brigade, who have always shown themselves, as in the case of the South African and Chinese wars, so ready to give their greatly valued services for the benefit of the country, the Order is in a position to carry out a work of the greatest national and military importance should this country be again unfortunately engaged in hostilities on a large scale, it will be a subject for the most sincere congratulation."

Sir James Crichton-Browne, writing to the *Throne*, says: "Total abstainers are, on the large scale, like poets, born and not made, but they are constitutionally composed of very different stuff. They are endowed, I believe, with a high degree of viability of a rather low-level type. The quality, as well as the quantity, of life must be considered, and that of total abstainers is, I am satisfied, good and sound, but not of the very finest brand. I desire to speak of total abstainers with the utmost respect. There are amongst them men of marked ability; they are, as a body, animated by the highest and most benevolent principles, but they are naturally sober-minded and sober-sided and comparatively exempt from those nervous tensions and strains that shorten life, apart altogether from any excessive indulgence in alcohol. They are probably by temperament less susceptible to diseases of various kinds than their fellow-mortals of more mobile and volatile organisation, and they are also less liable to endanger health by exposing themselves to excessive wear and tear. It will, I believe, be found that as a rule they are engaged in the less hazardous occupations of life, and that is a point of great importance, for the duration of life is undoubtedly largely determined by the nature of the pursuits to which it is devoted. Just in proportion as the emotional element enters into these pursuits are they unfavourable to longevity. Dr. Madden has shown in his tables that eminent mathematicians, dwelling on the clear, cold heights of intellect, have an average duration of life of 75 years; while the poets, down in the heated atmosphere of imagination, have an average duration of 57 years only. The moral philosophers live to 70, the dramatists only to 62. Genius of any kind has been rarely associated with total abstinence."

From the 61st report of the Commissioners in Lunacy, which was issued on September 11th, we learn that the number of insane persons who were known to be under observation on January 1st, 1907, was 123,988, being an increase of 2009 on the return for January 1st, 1906. The annual average increase for the ten years ending December 31st, 1906, was 2462, and that for the five years ending on the same date 2655. The total of 123,988 is made up as follows:—Private patients, 4322 males and 5567 females; paupers, 52,118 males and 61,018 females; criminals, 736 males and 227 females. The returns show that 73.5 per cent. of the total number of patients were maintained in county and borough asylums, the actual increase in such institutions over the previous year's figures amounting to 1818—i.e., only 191 less than the total increase of all the insane. In the registered hospitals the number exceeded that of the previous year by 43, and there was also an increase of 54 in provincial

licensed houses, of 41 in the State criminal asylums, of 74 in ordinary workhouses, and of 88 in metropolitan district asylums. On the other hand, there was a diminution of five maintained in the metropolitan licensed houses, of 47 in the naval and military hospitals, as well as of 34 in the number of private single patients, and of 23 in that of the outdoor paupers. On January 1st, 1907, the total number of notified insane persons in England and Wales stood to the estimated population in the proportion of 1 to 282. This gives an increase on the ratio of the preceding year of 0.48 per cent., whilst the actual numerical increase has been 1.64 per cent. The increase in the whole population during ten years has been 12.1 per cent., and in the numbers of the certified insane 24.8 per cent. The ratio for all insane was 18.67 per 10,000 of population in 1859, so that it has increased by 90 per cent. since that year. The largest proportionate increase of the ratio was in the first decade, 1859-1869. The largest increase in pauper lunatics in 1906 was in the county of London, the number being 356 over the previous year's total. There was also a large increase in the county of Middlesex, namely, 138.

At a quarterly court of the governors of the London Hospital, held on September 4th, the house committee reported that the Dowager Empress of Russia, who in March last visited the hospital with Her Majesty Queen Alexandra, had sent a donation of £400 to the general funds of the hospital and the following autograph letter, expressing the great satisfaction and pleasure she had derived from her visit:—"The Empress Marie-Foedorovna of Russia wishes to thank Lord Stanley and the members of the council for their courtesy in connection with her visit to the London Hospital, and to express again the great satisfaction she experienced on seeing your institution, where she found everything so admirably adapted for the wants of the inmates. The entire efficiency of the arrangements and the wonderful cleanliness struck her as leaving nothing to be desired, and she is much pleased at having had the opportunity of seeing such perfect organisation of an hospital." The committee announced that a vacancy in the Royal Household had been filled by a member of the hospital staff, Dr. Bertrand Dawson having been appointed Physician Extraordinary to the King. The number of patients attending the out-patient department of the hospital during the summer months has not been so great, and the pressure of work has not been quite so heavy as in the corresponding months of previous years. The committee recorded with regret the sudden death of Mr. F. J. M. Page, lecturer in chemistry at the Medical College. During the past quarter 3047 patients had been discharged or relieved and 294 died in the building. The total number of in-patients was 3341. The number of patients in the hospital that day was 764, and the highest number since the last general court was 830, the daily average being 788. The daily average for the whole of the year up to date was 789. The Chairman, in moving the adoption of the report, stated that Mr. Munro Scott, the warden, had undergone a serious operation, but he had quite recovered.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Melbourne Hospital Site.—The New Infant Life Protection Act.—The Melbourne University.

THE question of the site upon which the Melbourne Hospital is to be rebuilt seems almost as far as ever

from being decided. When the trustees of the Edward Wilson Fund promised their magnificent contribution they made it a condition that the site should be definitely selected within six months. Four of those months have passed. The Board of Public Health have pronounced authoritatively in favour of the site of the present Pig Market, and the honorary staff of the hospital have also declared for this site by a vote of 20 to 3. From a sanitary point of view the Pig Market site is undoubtedly to be preferred, but so many other questions are involved that decision is by no means easy. The original suggestion was that a new Town Hall should be built on the present hospital site and the present Town Hall site be sold. The Town Hall is undoubtedly pressed for room, and a magnificent building worthy of Melbourne could be built on the 4½ acres of the hospital site. This would also solve almost entirely the financial difficulties of the question. The Pig Market site contains 19 acres, really more than necessary for a hospital of 450 or 500 beds as proposed. It should suffice, however, at present to build rather a smaller hospital, leaving room for further expansion as more urgently required. Charity is the one commodity which reverses the usual law of supply and demand. The more there is available the more who least deserve it will avail themselves of it. This was especially seen in the case of our Children's Hospital, which was considerably enlarged some years ago, and was immediately taxed to its utmost. It is to be hoped, however, for the sake of the future that the Pig Market site will be chosen, even though the whole of its 19 acres be not utilised at present.

The new Infant Life Protection Act, which was one of the measures passed by the recently-ended State Parliamentary session, comes into operation with the new year. We in Victoria were until now considerably behind other States in this direction. This Act is in the direction of improvement, and should prove of considerable value. The administration is taken out of the hands of the police and transferred to the Department of Neglected Children, and special inspectors, not constables, are to be appointed. Every infant will be under the care of a medical officer. The age of protected infants has been raised from two to five years. Payment for maintenance is to be made only through the Neglected Children's Department, never direct to the nurse. The granting of a death certificate in connection with a protected infant by a medical practitioner other than a medical officer of the Department will be an offence. This is a distinct advance upon the old system where the police acted as inspectors both of boarded-out children and of registered nurses for illegitimate children. The local honorary ladies' visiting committees, which have undoubtedly done good work in the past, will continue.

The University of Melbourne, at the request of the Premier, has furnished him with a list of requirements amounting to the respectable total of £21,800. Included in this is £1000 in addition to £4500 already provided for additions to the Anatomy School. Other large items are £6000 for the Mining School, £5000 for the Botany School, and £4500 for the Veterinary School. The Premier has promised to find the balance if the University can raise £10,000. The Premier will seemingly find little difficulty in disbursing his "surprise" (*sic*) surplus, which he now estimates at £1,000,000. In view of this surplus one feels that he could afford to be even more generous to the University than he promises. As a matter of fact the amount set down for the Anatomy School will be quite inadequate, as the tenders for additions only amount to £6300, and a

further sum of £1000 will be required for fittings, etc. If our University is to retain the services of the best men they must be provided to the utmost with adequate accommodation and appliances to enable them to do their work to the best advantage of their students and their own reputations.

South Australia.

(FROM OUR OWN CORRESPONDENT.)

A Degree in Dental Surgery—The State Parliament—Exemption from Vaccination—Habitual Criminals—Amendment of the Law Relative to Coroners—Resident Officers at the Adelaide Hospital—Doctors and Apothecaries—The Children's Hospital.

It seems probable that the Adelaide University will soon fall into line with the Universities of Sydney and Melbourne and establish a degree in dental surgery. At the last meeting of the Senate the desirability of these being done was affirmed, and the Faculty of Medicine has since appointed a sub-committee to confer with a sub-committee appointed by the Dental Board. The latter body has hitherto controlled and directed instruction in dentistry. Dental students have been allowed to attend lectures in anatomy, physiology and chemistry at the University, but the University does not examine them. The policy of the Dental Board has been to steadily raise the status of the dentist, and it is felt that this would best be realised were the University to establish a dental curriculum and grant a degree in dental surgery.

There has been very little legislation of medical interest during the session just concluded. An Act has been passed to amend the laws relating to the registration of births, deaths and marriages. The amendments are merely of statistical interest, and have been passed in order to make the laws uniform throughout the States.

In 1901 an Act was passed exempting from vaccination any child whose parent or guardian conscientiously believed that vaccination would be prejudicial to the health of that child. The Act, however, has not been enforced, and consequently hundreds of children are unvaccinated without being legally exempt. It has been decided to enforce the vaccination laws, but in deference to the conscientious objector, those who have failed to obtain the necessary exemption are to be allowed another opportunity to do so, and it is for this reason that the Compulsory Vaccination Exemption Extension Act, 1907, has become law.

A useful law has been enacted relating to habitual criminals. After three convictions for certain offences a judge may declare that a person is an habitual criminal. He can then only obtain his release if the Governor is satisfied that he is sufficiently reformed, or for other good cause.

Under the new Act the coroner is empowered to hold inquests without a jury, and should jurors have been summoned, it is no longer necessary for them to view the body of any deceased person unless required to do so by the coroner.

A good deal of inconvenience has been caused during the last year or two by resident medical officers at the Adelaide Hospital giving up their appointments and going into private practice before they had served their full term. The vacancies have not been easy to fill, as only a few students graduate every year at Adelaide, and graduates from the other States naturally do not care to go to the Adelaide Hospital for a few months at the end of the year. In future those who are appointed will have to agree to complete the term for which they were appointed.

A certain lack of sympathy seems always to have existed between those privileged to prescribe and those who are restricted by law to the dispensation alone of drugs. And the controversy which led Garth, the Kit-Kat poet, to write his famous poem "The Dispensary," and Pope to write the lines—

"So modern 'pothecaries' taught the art
By doctors' bills to play the doctors' part,
Bold in the practice of mistaken rules,

Prescribe, apply, and call their masters fools—
has not yet ended. A sub-committee appointed by the Medical Defence Association met a sub-committee appointed by the Pharmaceutical Society a few months ago, and a long and amicable conference was held. The grievances of both sides were fully discussed, and some were admitted to be real but difficult to remedy. On the whole, however, the conference did good.

Under the Martin bequest the Children's Hospital benefits to a very large amount, over £40,000. Very wisely the greater part of this is to be applied to the formation of an endowment fund. It has been found necessary, however, to apply a certain amount of it towards improving the present buildings. A new X-ray department has been provided. The quarters of the administrative staff and of the nurses have been improved. A new kitchen and laundry have been built. A fine open-air "sun parlour," as our American cousins call it, has been placed between the Angas and Way buildings, and the provision of an electric lift has tended to alleviate duties which hot spells of weather render most arduous. An infants' ward is badly needed, and it is to be hoped that the Board will try to emulate the good work in this direction which is being done by Dr. Holt, of New York, and Dr. Rotch, of Boston. The greatest mortality in children occurs in infants under one year, but few children's hospitals have made a strenuous effort to reduce this death-rate. May the Adelaide Children's Hospital do so!

Quackery and Sale of "Patent Medicines."

THE following memorandum dealing with the manufacture, importation, and sale in the State of Queensland of preparations commonly known as patent or proprietary medicines, and the effects of the use of such articles, has been submitted by Dr. Burnett Ham at the request of the Hon. the Home Secretary:—

1.—*The necessity for action.*—Australia, like America, is the home of quackery. A large army of impostors—so-called "Professors," "Herrs," "Nurses," "Herbalists," and "Specialists," who with little if any professional training in medicine, surgery, midwifery, *materia medica*, chemistry, or pharmacy, and possessing no legal qualifications to practise the same, are allowed at the present time to exist and find a flourishing means of livelihood among our community. Such impostors, and in many cases palpable humbugs, pursue their nefarious calling under no legal restraint or control. These "Quacks" extensively advertise their so-called "Consumption" and "Cancer Cures," to the detriment of sufferers who, from ignorance or credulous hope, are led to part with their money, and often their only chance of recovery. The absurd pathological conditions set out in their advertisements tend to produce an exaggerated dread of disease, and while it is difficult to sometimes draw the line between advertisements of a *bona fide* nature and those apparently "manufactured," the "testimonials" published regarding the curative properties of these medicaments,

if not entirely fraudulent, are, in most instances solicited and obtained from patients by methods which at once deprive the so-called "unsolicited testimonials" of any spontaneity or legitimacy. A certain class of proprietary medicines contain a large amount of alcohol. To this class belong such preparations as "Peruna," "Lacupia," "Vibrona," "Vitadatio," and certain medical "Bitters" and "Wines." Ignorance of the amount of alcohol in such class of "medicines" tends to promote the drink habit and secret tippling among the community. I have made a list of proprietary medicines now offered for sale on the Brisbane market, and which are reported to contain more than 5 per cent. of proof spirits. Subtle drugs are frequently sold under concealment of a trade-mark name. The sale of deleterious drugs under secret formulae is a common practice. Certain "Headache Powders" are very popular with the public, especially women, and are usually taken by the latter without particular reference to the dose or frequency of administration. For the most part the basis of these headache cures contains Antefebrein or Acetanilide, a deadly drug, producing toxic effects when taken in small but repeated doses. The dangers arising from the habitual use of preparations containing the drug "Cocaine" are well known to the medical profession. The over-stimulated nervous systems of persons addicted to the "cocaine habit" necessitates frequent, and often secret, use of proprietary medicines known to contain this drug. "Soothing Syrups" are also popular preparations among mothers and nursemaids. "Soothers" contain such drugs as morphia and opium. They are eminently adapted for increasing the infant mortality. It is said on good authority "that 15,000 children are killed every year by soothing syrups and other similar preparations." (Dr. Wm. Murrell, Lecturer on Pharmacology at the Westminster Hospital, London). "Soothing Syrups" and "Cough Mixtures" can be obtained from many storekeepers and drapers without the restrictions imposed on chemists by the Poisons Act of Queensland. Exorbitant prices are demanded for certain "Electric Belts," "Artificial Ear Drums," etc., which contrivances are worth in intrinsic value but a few pence, and are often absolutely worthless for the ailments they profess to cure or alleviate. Ecboic, emmenagogue, and abortifacient drugs, real or supposed, are openly advertised and sold by persons other than chemists, in Brisbane, and without prescription by a locally qualified medical practitioner. "Preventive" goods and other apparatus are also openly sold in certain shops in this city, and command a large sale. The death-rate from poisoning, accidental or determined, is higher in Queensland than in any other State of the Commonwealth, and compares unfavourably with deaths from the same cause in other countries. Owing to the lax administration of our "Poisons Act" it is quite as easy for the general public to obtain certain deadly poisons as it was before the Act was passed. Carbolic acid has been sold by storekeepers in beer bottles, with the label "Pale Ale" still unobliterated by any "Poison" label. Any would-be suicide can easily purchase a pint of carbolic, sulphuric, and other acids without restriction. Arsenic is frequently stored in loose quantities on the shelves of many country storekeepers, side by side with bicarbonate of soda and other groceries. Many popular patent preparations sold by storekeepers and large wholesale drapers contain drugs, the dose and therapeutic use of which the shop assistant is absolutely ignorant of. As a case in point, which came under my personal knowledge the other day: A woman purchased a bottle of "Chlorodyne" (containing

morphia and prussic acid) at a large drapery store in this city, and on asking the ordinary dose for a child of three years of age she was told by the shop assistant to give a "teaspoonful or so." The Government endow hospitals for the purpose of alleviating the suffering of the indigent poor, who can thus gratuitously secure skilled medical and surgical advice. The law provides that the person so offering advice or prescribing medicines, or performing surgical operations, shall give proof of his competency by examinations before a recognised University Faculty or College Board. The chemist or pharmacist also requires to be qualified by examination before he can dispense medicines. No such qualification is demanded of the "Quack" who, apparently, is quite an irresponsible person. The law provides elaborate and expensive machinery for the safeguarding of the public against many other forms of fraud, and it is only logical to demand that the law should protect a people dosing itself with quack medicines, and being dosed by ignorant tradespeople with medicines of the composition of which the latter are often ignorant.

2.—*How the matter is dealt with by present legislation and administration in this State.*—(a) Sale and use of Poisons Act, 1891: In the passing of this Act the Legislature probably had only one object in view—viz., the protection of the public. This Act is based on the English Acts (Pharmacy Acts, 1852 and 1868). 1. A classification of "Poisons" is drawn up, and the sale of these is entrusted to certain persons, ostensibly pharmaceutical chemists. In arranging the classification, two schedules are made use of—the first containing a number of deadly chemicals and drugs, including arsenic, prussic acid, strychnine, corrosive sublimate, etc., which may not be sold unless the purchaser is over eighteen years of age, is known to the vendor, or is introduced by some mutual acquaintance. Such sales must also be registered and attested by the signature of the purchaser, the name and quantity of the article, and the purpose for which the poison is wanted entered in the "Poisons Sale Book." But the sale of the articles in the second schedule, although comprising dangerous poisons, such as carbolic acid, oxalic acid, various mercurials, vermin killer (phosphorous), etc., can be effected without any of the formalities necessary to schedule 1, it being only requisite that the name and address of the seller, the name of the article, and the word "Poison" be attached to the bottle or packet. 2. Unqualified persons are not allowed to sell poisons, but any person, on payment of a fee of £1, may receive from two justices, if latter satisfied, a certificate as a "Dealer in Poisons." 3. Wholesale dealers are exempt from the Act. 4. The Act does not extend to the sale of patent and proprietary medicines. The administration of the Poisons Act has been "honoured more in the breach than the observance." The provisions of section 4, subsections 1, 2, 3, and 4 are rarely carried out, except by chemists and druggists. The "Poisons Sale Book," in which book sales and particulars are required to be recorded, is seldom kept by storekeepers. The "receptacles" for the exclusive storage of poisons, "fitted with lock and key," is conspicuous only by its absence. The wrapper or cover containing the poison is but rarely marked with a poison label, as provided for in section 10 of the Act. (b) Licensing Acts, 1885 and 1895. Section 109 of the 1885 Act provides that the sale of liquor by *unlicensed persons is prohibited*. In the Liquor Act of 1895, the term "liquor" is defined as wine, spirits, beer, porter, stout, ale, cider, perry, or any spirituous or fermented fluid containing five per centum or more than five per centum of proof spirit. Under this Act, therefore, any proprietary medicines

containing more than the specified quantity of proof spirit comes within the meaning of the above section. This means that it is illegal for grocers, drapers, and storekeepers to sell such proprietary articles as "Peruna," "Pain Killer," "Safe Cures," etc. (c) Health Act, 1900. The definition of drugs under this Act is any substance, vegetable, animal or mineral, used in the composition or preparations of medicines, whether for external or internal use, including tobacco. Under section 93 (v.) no person shall sell any drug so mixed, coloured, stained, or powdered with any ingredient or material which the Governor in Council by order in Council declares to be an injurious ingredient. It is essential to this offence that the article should be proved injurious to health. Where this can be shown, there is a penalty of £50 for a first offence, and imprisonment for a second conviction. The drawback is that ignorance of the adulteration is a good defence, and this excuse is generally resorted to. Section 94 provides that "any person who sells any food or drug which is not of the nature, substance and quality demanded by the purchaser shall be liable to a penalty not exceeding £20." It is provided, however, that an offence shall *not* be deemed to be committed under this section "when the drug or food is a proprietary medicine, or is the subject of a patent in force within Queensland." This Act does not cover proprietary or patent medicines. The vendor sells the article for what it purports to be, and may be ignorant of what it contains, and in this respect it may be held that it is not sold to the prejudice of the purchaser. Under section 105 the Commissioner may make regulations with respect to "regulating the wording on labels to be used in the sale of *mixed or altered* drugs. The provisions of the Health Act are inefficient to meet the case, and have little bearing on the sale of patent and proprietary medicines, alcoholic medicines, or quack nostrums containing poisons.

3.—*Legislation in Australia and elsewhere.*—As a result of the recent revelations as to the composition of many patent medicines, and the action taken by the Queensland authorities with regard to an imported medicine known as "Peruna," legislation dealing with the sale of food and drugs is occupying a prominent place in the consideration of legislative bodies of several of the States of the Commonwealth. In Victoria a Pure Foods Act has been passed which will effectually deal with the whole subject. Regulations as to drugs have been made by the Food Standard Committee appointed by the Victorian Government. The following is a copy of these regulations, which will take effect from the 31st December, 1906:—1. No compound drug of which the average dose is more than one teaspoonful (60 minims), for adults, or is more than one-half of one teaspoonful for children under five years of age, unless such compound drug is a preparation set out in the British Pharmacopœia or is sold specially as an alcoholic compound, shall contain more than ten per centum, by volume, of ethyl alcohol. 2. No drug or compound drug other than any sold specifically as one of, or as containing one or more of the substances set out herein, or any of their derivatives, shall contain opium, or belladonna, or stramonium, or nux vomica, or cannabis indica, or cocaine or heroin, or any derivative of any of those drugs, or chloral hydrate, or bromides, or sulphonal, or trional, or veronal, or paraldehyde, or any other synthetic hypnotic substance, or phenazonum, or phenacetinum, or acetanilidum, or any other allied synthetic substance. Any person who sells, or manufactures, or applies a description to, or sells under any description, any drug in any manner contrary to the provisions of the Health Acts, is liable to the penalty prescribed for an offence

against the said Acts. In New South Wales similar legislation is to be introduced. Bills amending food and drug legislation have also been drafted by the South Australian and Western Australian Governments. In France, Germany Sweden, Norway, and in several of the Swiss cantons the sale of secret medicines is absolutely forbidden under heavy penalties. In Italy advertisements of claims of merit are forbidden. In Germany, with rare exceptions, patent medicines and proprietary articles can only be held for sale by licensed apothecaries. Until recently the various States of America had separate food laws for each State, and these varied enormously. A bill has now been passed, not by local State legislatures, but by Congress, for the whole of the United States. One provision of this bill enacts that patent medicines intended for exportation to other States shall bear a label specifying the amount of alcohol and of certain narcotic drugs present. The Commonwealth Government has recently passed the Commerce Act, and the regulations made thereunder will shortly come into operation (1st January, 1907); timely warning, therefore, being allowed to manufacturers abroad. The Act and Regulations deal with the labelling of food and drugs that are either exported from or imported into the Commonwealth; *but goods exported from one State to another do not come within the scope of the regulations.* The regulations made under the Commerce Act will therefore be no protection to the inhabitants of a State from the misdemeanours of their fellow-countrymen, and there is also no guarantee that after importation the goods will not be tampered with by unscrupulous local vendors. Under the health statutes of the various States of the Commonwealth the health authorities of Queensland, Victoria, New South Wales, and Tasmania have made regulations prescribing standards for the compositions of various foodstuffs and drugs. The standards vary in many respects in each State, and there can be no uniformity of procedure and certainly of action until all the States adopt one uniform code of regulations. In a letter of 1st October, 1906, addressed by the Honourable the Prime Minister of the Commonwealth to the Honourable the Premier of Queensland, Mr. Deakin invites the co-operation of the services of the health officers of the State in carrying out the provisions of the Commerce Act relating to the better control and supervision of importations of patent medicines, artificial foods, and medicinal appliances. It is proposed that samples of those classes of goods be occasionally obtained by Customs officers, and submitted to the health authorities in the State for report as to whether—1, they are deleterious to the public health; 2, the trade descriptions are false and misleading in regard to their curative effects, or in any other particular which may deceive the purchaser; and that if they are found deleterious or falsely described, their importation shall be prohibited. I have always contended that what was really needed was inspection and examination at the port of entry—viz., the Customs—before delivery of imported goods to the consignee. I shall most willingly, with the sanction of the Honourable the Minister, comply with the request of the Honourable the Prime Minister of the Commonwealth, but I would beg to point out that some 100 or more samples of foodstuffs are already awaiting examination in the Government Laboratory, owing to the want of adequate assistance to the Government Analyst. The following are the regulations in connection with the Commerce Act:—(a) In the case of medicines prepared for ready use, and containing 10 per cent. or more of ethyl alcohol, if the average dose recommended exceeds one teaspoonful (60 minims), the trade description shall set out the proportion or

quantity of alcohol in the medicine. (b) In the case of medicines prepared ready for use, and containing any of the following drugs (or the salts or derivatives thereof), viz.:—Opium, morphine, cocaine, heroin, stramonium, nux vomica, cannabis indica, bromides, sulphonal, trional, veronal, paraldehyde, or any synthetic hypnotic substance, phenazonum, phenacetinum, or acetanilidum, or any allied synthetic substance, chloral hydrate, belladonna, cotton root, ergot, or any abortifacient, the trade description shall set out the names of all such drugs so contained. A bill entitled "The Quackery and other Frauds Prevention Act, 1906," was introduced into the New Zealand House of Representatives in September last, and has reached the Committee stage. At the request of the Honourable the Home Secretary, I have drafted a bill for the better control and supervision of the sale of dangerous drugs and medicaments. The bill deals in a comprehensive manner with the matters set out in the memorandum, under the heading of "Necessity for Action."

The Tuberculosis Crusade in New Zealand.

From *Sharland's New Zealand Medical Journal* we learn that occasion was taken by Mr. L. J. Bagnall, at a recent meeting of the Auckland Hospital and Charitable Aid Board, to complain that immigrants suffering from tuberculosis and other diseases were being admitted into the Dominion, and that either they or their dependents were becoming a burden on the local institutions. One man, suffering from tuberculosis, had been admitted here a few months ago, and had since died, leaving a wife and six children, whom the board had to support. Several other cases of a similar character had also occurred. It would seem that those at home where these people came from were very loose in their examinations, as otherwise such people would not be shipped, and there must be an equally loose examination here, as otherwise they would not be allowed to land. He thought the attention of the department should be called to the matter, and that they should be asked to prevent a repetition of such slipshod methods in future, so that people would not be allowed to land who would be a burden on the ratepayers.

Mr. J. Jenkin endorsed Mr. Bagnall's remarks, stating that he knew of several instances in which people suffering from ill-health had been brought out here by their friends, were supported for a short period, and were then thrown on the board. At least four or five cases had been cast upon the board within the past six months in this way.

Mr. W. R. Bloomfield said that he knew of one instance in which at London 400 immigrants had been passed in 35 minutes.

The chairman's suggestion was adopted.

Referring to the above, Dr. Mason has stated that representations had been made by his department many times to all the shipping companies whose boats came to New Zealand, drawing attention to the fact that persons suffering from consumption could not be allowed to land in the Dominion. Representations had also been made to the home authorities, and he had been assured that at home they did examine passengers for New Zealand, and whatever his department might think of the examination they had to believe that it was carried out. The Health Department did not rest at that. In every case of the arrival of a ship with a lot of third-class passengers, where the port health

officer had the slightest doubt about a passenger, the latter was put aside until the former consulted with the district health officer. In Wellington such cases were referred to him (Dr. Mason). There were two or three rejects in the case of a majority of these large ships—especially in Wellington. But this was a law which must be enforced in a humane way. A man might come into the Dominion with a sore throat, and in six months might develop phthisis. He had not the slightest hesitation in saying that our system of medical examination at ports was more complete and thorough than in any other part of the world. As evidence of this the Health Department was getting constant complaints as to persons being excluded. There were undoubtedly cases of people who had only been in New Zealand 18 months or so developing disease and becoming chargeable, but notwithstanding, he did not think the medical examination could be made very much stricter, because if it was required of every passenger coming to New Zealand that he should strip and have his chest examined thoroughly, there would be great objections, and a great delay to shipping. He thought, too, that it would be unfair. At present ships' officers had to sign a clear bill of health—a certificate that the captain knew of no sickness on board. In addition, in many parts of the Dominion the Health Department got a certificate from the ship's doctor that so far as he knew there were no cases of tuberculosis on board. They were doing everything they could to advise the people at the other end not to ship persons suffering from disease, and the shipping people knew that if they carried a man who could not land in the Dominion they would have to pay his passage back.

The International Congress for Hygiene.

A REALLY magnificent scientific gathering was brought to a close on September 29th, after a week of instructive deliberations and demonstrations. Large numbers of well-known specialists on hygienic problems from all parts of the world met in Berlin and gave by their sympathetic co-operation another proof of the feeling of solidarity in scientific circles. Undoubtedly Berlin has many attractions of its own from a hygienic point of view. It is the youngest metropolis in Europe, and also the cleanest large city, and, being the seat of a university, is so plentifully equipped with hospitals, hygienic laboratories and philanthropic societies that the nickname of "Mediconopolis" has been with some show of reason applied to it. There was a great interest shown by the members of the congress to see a variety of Berlin institutions in working order, and the autobuses crowded with the hygienic guests were a familiar sight in the streets of Berlin during the last week. These excursions, favoured by glorious weather, did not interfere, however, with the important work of the various sections. At the present moment, when bubonic plague and Asiatic cholera are again spreading, the proposals made for preventing the propagation of such epidemic diseases naturally claimed the most general attention. It was Dr. Henri Thierry, of Paris, who showed what precautionary steps are needed in the railway traffic of infected countries and their neighbours. That we may best cope with the spread of bubonic plague by carefully killing the rats on board incoming ships, and that the system recently employed in the harbour of Hamburg for this purpose has the advantage of thoroughness and cheapness, while not doing the slightest injury to cargoes, was conclusively

shown. It is perhaps not so easy to kill the insects that are known to spread epidemic diseases; but some commendable suggestions were also made in this direction. In the seventh section the questions of the supply of water to armies in the field were most thoroughly discussed.

The problem of hygienic dwellings is one of the most important economic questions rather than a scientific one. Mr. R. Aldridge, of Leicester, secretary of the National Council for Dwellings Reform of Great Britain, concluded from the experience gained at Liverpool that municipal supervision was indispensable for the erection of workmen's dwellings by private firms and philanthropic associations. M. Cacheux, of Paris, urged that monasteries and convents ought to take a hand in providing sanitary houses for the poor. The German speakers on this question, Professor Fuchs, of Freiburg, and Herr Kampffmeyer, of Karlsruhe, insisted on the advantages of combining expensive dwellings and workmen's dwellings on one compound or at least side by side. That, in the last end, the whole problem turned upon the question whether it was possible to secure cheap land to build on at the outskirts only or just as well in the centre of the towns, was admitted on all sides. To take up the question of providing building lots at reasonable prices was generally recognised as one of the most important duties of municipal activity.

A paper read by Professor Czerny, of Breslau, was calculated to satisfy parents that there is no mental overstraining in the German schools. The symptoms that are generally interpreted as indications of excessive brain work are really caused either by deficient ventilation of the schoolrooms or by the mistake of separating children from their equals and keeping them too much in the company of grown-up people. Wherever both these evils are avoided school children are free from nervous complaints and as cheerful as they ought to be. A similar problem was taken up by some Italian and German experts. They tried to find out by experiment whether, as a matter of fact, the amount of exertion involved in a fair day's work under the general conditions of manual labour in the principal trades causes a state of unhealthy exhaustion or not. The result was that, as a rule, that is by no means the case. That tired feeling that is so often complained of by people of mental exertion is happily almost entirely absent in the circles of the ordinary workman. Only care is to be taken that monotonous drudgery is from time to time interrupted by work which claims more attention, while, on the other hand, dangerous work is for other reasons to be discontinued long before the labourers could feel tired. Machinery and other mechanical appliances have in Europe successfully reduced the abuse of human muscle strength that former generations were used to. It remains for factory legislators to provide safeguards against the dangers naturally connected with powerful engines.

Thus the discussions of this congress brought it to light that, at present, the social and mental surroundings are of far greater hygienic interest to the public than the more technical questions of sanitary engineering and medical precaution.

Recent Changes at the Medical Faculty of the Berlin University.

IN the teaching staff of the Berlin University some important changes have recently taken place, principally

in the medical faculty. After the death of the famous professor of surgery, Ernst von Bergmann, it was a momentous question who should be his successor. The choice fell upon Professor August Bier, of Bonn, who, as the founder of the treatment by the stowing of blood, has become known all over the world. This method is based on the theory that the often-observed influx of blood to inflamed parts of the body is a natural remedy resorted to by the living organism. Professor Bier proposed to make use of this healing capacity by artificially increasing the accumulation of blood at the isolated spots. In the beginning exaggerated hopes were based on his experiments; but even after the most adverse criticism it is now admitted that his researches contain some of the most interesting discoveries and of the most important achievements of modern surgery. There was a great deal of polemic discussion between the schools of Bergmann and of Bier. This accounts for the general changes at the University hospital following upon Bier's appointment, the new chief finding it advisable to replace most of the old assistant surgeons by new men of his own school.

Another serious loss experienced by the faculty was the resignation of the clinical professor, von Leyden. He was for many years the highest authority on the treatment of internal diseases. It was he who attended the Czar Alexander III in his last illness, and quite recently he attracted general interest by his successful work in the Institute for the Study of Cancer. As his successor, Professor Friederich Mueller was called to Berlin from Munich University. He is a native of Augsburg, and was for many years connected with the famous Julius Hospital at Wuerzburg, but as a former assistant of Professor Gerhardt he was already once, for four years, on the teaching staff of the Berlin University. His monographs on the diseases of the digestive and respiratory organs enjoy a high reputation.

Towards the latter days of June a further bereavement befell the faculty, when the sudden death of Professor Mendel was reported. He was one of the most celebrated psychiatrists and psychologists. Originally an ordinary practitioner, he made a specialty of the study of psychical aberrations, and distinguished himself by the art of gaining the confidence of his patients. Public-spirited as he was, he was very active in the promotion of humane organisations, and he left his mark also on the new German civil code, where the provisions dealing with the various degrees of insanity were based upon his suggestions. His public lectures at the University were largely attended by students of law on account of the clear distinctions of mental derangement he demonstrated. He was extremely popular in Berlin, and his asylum in the suburbs of Pankow is widely known. It will be very difficult to find a substitute for such a many-sided personality.

Hobart Nursing Association.—At the usual monthly meeting of this association held last month, it was reported that the third nurse appointed by the association had now taken up work, and after the return from leave of the other nurses the city and suburbs will be divided into three districts instead of two, and a nurse will be placed to work in each. A letter from the chief secretary's department was read stating that the Commissioner of Police would receive immediate instructions for the administration of the Infant Life Protection Act, under which the nurses of the District Nursing Association will be inspectors.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of December, 1907:—The deaths in the metropolitan municipalities (Sydney and suburbs) during December, exclusive of patients in Gladesville and Callan Park Hospitals for the Insane, numbered 497. This mortality is slightly above the previous quinquennial average for December, and is equal to a death rate of 10·84 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all benevolent asylums and hospitals for the insane throughout New South Wales, the death rate becomes 11·73 per 1000, which is the more correct figure. Diarrhoeal diseases were responsible for 79 deaths, of which 75 were attributed to enteritis and 4 to diarrhoea. This total is four less than that for December, 1906, and 42 below the quinquennial average for the month. Infectious diseases other than diarrhoea caused 27 deaths, of which measles were responsible for 3, scarlet fever for 2, whooping-cough for 5, diphtheria for 3, typhoid fever for 8, puerperal fever for 4, and influenza and cerebrospinal fever each for 1. Respiratory diseases, with a total of 22 deaths, were less fatal than usual, but phthisis caused 39 deaths, which is above the average for December. Diseases of the heart and blood-vessels were considerably more fatal than usual. This class of causes accounted for 83 deaths, compared with an average for December in the five previous years of 60 deaths. Cancer caused 37 deaths, and Bright's disease 24. Deaths of children under one year numbered 152, which figure is equivalent to an infantile mortality rate of 133 per 1000 births. This rate is higher than that experienced in December, 1906, but is well below the previous average for the month. The chief causes of infantile mortality were:—Diarrhoeal diseases, 59; prematurity, 31; developmental diseases, 30; respiratory diseases, 8. Of the notifiable infectious diseases, 218 attacks were notified; 88 of these were caused by scarlet fever, 43 by diphtheria, and 87 by typhoid fever. Within the city of Sydney, 12 cases of pulmonary consumption were notified under the City Council's by-laws. Three dwellings were disinfected after the occurrence in them of deaths from consumption, and two dwellings after removal from them of living consumptives.

Smallpox.—The Norwegian steamer *Elsa*, which arrived at Newcastle at the end of last year with

a case of smallpox on board, came on to Sydney, and cast anchor at the quarantine station. Arrangements were at once made for the landing of the patient and the crew, and the whole of the contacts were vaccinated. In cases in which the operation is successful the contacts will be detained for fourteen days, while those who do not "take" will be detained for 21 days should no fresh case of smallpox develop in the meantime. No other suspicious cases developed amongst the other members of the crew.

Bubonic Plague.—After an interval of seven months, bubonic plague has again made its appearance in Sydney. Up to date 3 cases have been reported. The first case occurred in a young woman 21 years of age, employed in a factory in Darling Harbour, but residing at Petersham, on the borders of the Marrickville municipality. The infection was traced to a produce store in the immediate neighbourhood of her residence, where a number of dead rats were found plague-infected. It is supposed that the rats at this store became infected by a plague-infected ship's rat carried in some bags of chaff which were obtained from one of the wharves of the City. The second case occurred in a dairyman 21 years of age, residing at Hurstville. No rats had been found in the neighbourhood of this man's residence, but he is reported to have visited the produce store in Marrickville, where the infected rats were found, and is thus supposed to have contracted the disease. The third case occurred on the 14th instant.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, December, 1907:—

Colour	19° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	80·0000
Chlorine	3·3500
Free ammonia	·0004
Albuminoid ammonia	·0136
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0049
Oxygen absorbed in 4 hours	·0651
Permanent hardness	1·7
Total	3·2

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during December, 1907:—

Final Effluents from	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C
			Suspended Solids.	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Nitrogen as		Oxygen Absorbed in		Albuminoid Ammonia.	Oxygen absorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. M'k'd	Faint	2·50	10·2	3·202	·366	·049	·337	—	1·074	54·6	84·6	No decomposition
Folly Point..	.. V. f't	Nil	·80	11·0	2·416	·091	·011	·473	—	·548	93·4	91·2	„ „
Balmoral ..	.. „ „	Nil	·34	11·4	·697	·084	·015	2·455	—	·482	88·9	87·4	„ „

Victoria.

Infectious Diseases.—During the fortnight ended December 28th, there were 66 cases of typhoid, and 2 deaths, reported for the whole State, as against the average of 72 cases and 5 deaths for corresponding periods of the previous four years. In the metropolitan area there were, however, 28 cases, with 1 death, the average being 19 cases, with 1 death. Dr. Norris stated that the increase in this instance was due to a group of cases in Malvern, towards Caulfield. These cases were being investigated by the board. The return showed a falling off in the cases of diphtheria and scarlet fever for the whole State, but in the metropolitan area diphtheria gave an increase from 16 to 19 cases.

Protection of Infant Life.—By the Infant Life Protection Act, which came into force on January, 1st (says the *Melbourne Age*), several important changes designed to check the sacrifice of infant life, are made. The administration is removed from the Police department to the Neglected Children's department, and constables are to be superseded by women as inspectors of registered nurses' homes. Honorary visiting committees may also be appointed. Every infant is to be under the care of a medical officer, and the age during which infants are to be protected has been raised from two to five years. The Government also has power to establish maternity homes in which the infants and mothers can be kept together. Regulations may be made as to the food, management and accommodation of boarded out infants, and permission to board out an infant must be obtained from the Neglected Children's department. Payments for the maintenance of infants may only be made through the Neglected Children's Department, and must be in weekly sums of not less than 10s for infants under one year old, and not less than 7s for infants over that age. If the responsible person is unable to pay 10s, the department will make up the difference, but the child will become a ward of the State.

Tasmania.

Population Statistics for the year 1907.—The estimated population on December 31, 1906, was 180,163. In the following year (1907) the births within the State totalled 5,326 souls, comprising 2,795 male and 2,531 female infants. Deaths numbered 2,026, being 1,085 males and 941 females. The excess of births over deaths was thus 3,300. 19,496 males and 12,543 females entered the State, giving a total number of 32,039. The number of men who left the State was 21,903, and of women, 14,240. The total outflow was, then, 36,143. There was then a total loss of emigration of 4,104 souls, comprising 2,407 males and 1,697 females. Comparing the figures of the year just past with those of the year which preceded it, we find that the difference in the population is a decrease of 697 males and 107 females, or a total decrease of 804. Speaking in regard to the estimated population upon December 31, 1907, the officials of the Statistician's Department place the following figures before us:—Males, 92,235; females, 87,124. Total population, 179,359.

Queensland.

Bubonic Plague.—A fatal case of bubonic plague at Brisbane occurred on 3rd January, 1908. The patient, a man, aged 33 years, living at Boundary Street, Spring Hill, and working on a coal bulk in the river, was admitted to the Brisbane General Hospital on the 1st instant. The post-mortem examination of

the viscera of the body showed that death was due to plague. The bacterioscopic, cultural, and inoculation tests were positive of pestis. Active search for plague-infected rats is now being made at the late residence of the patient, as also at the wharves; the latter having been under especial supervision for some time past and notably free of rat-infestation. Of 1950 rats destroyed and 1522 examined during the month of December, 1907, one was found to be plague-infected. Number destroyed, rats, 931; mice, 70; examined, rats, 729; mice, 25, for 3 weeks ending 11th January, 1908.

Control of Butchers' Shops.

THE administration of the Local Government Act in New South Wales is in the hands of the Department of Public Works, and the Minister has issued a circular covering copies of suggestions for ordinances relating to the sale of meat to all the shire councils, requesting them to consider these suggestions at an early date and to report to him.

The ordinances are to apply to municipalities and shires which have acquired the power to regulate and supervise the sale, storage, exposition for sale, and conveyance of meat; the delivery by carcass or otherwise of meat for human consumption; and of the disposal and removal of other meat, and of any blood, offal, or other refuse. Persons engaged in the butchering business must have their premises licensed, the license to be renewed annually, at least 28 days before July 1st. The license fee is fixed at £1. The council may refuse to grant or to renew any license; or may cancel a license already issued (a) to any person who has been thrice convicted of an offence against the ordinances, or against the Cattle Slaughtering and Diseased Animals and Meat Act; or (b) in respect of any premises which are in an insanitary condition; or, in ventilation, drainage, and other sanitary accommodation or water supply, are not such as are necessary for the health or for the cleanliness of the appliances and utensils of the meat trade, or for the protection of meat against contamination or for the proper disposal and removal of refuse, or which do not comply with the provisions of the ordinances.

The internal walls of shops must be covered with white tiles, iron painted white, or some other white and non-absorbent covering, capable of being easily and thoroughly cleansed by washing. Shop fronts not enclosed with glass must be enclosed with wire gauze of such mesh as to exclude flies, and doors in front must be kept closed except when in use for ingress and egress. Meat must not be exposed for sale in such a manner that it will be wholly or in part outside the walls of the shop, or the gauze which encloses the shop front. Every shop must be freely open to ventilation.

Precautions are embodied to exclude rats, and the owners of a shop, the floor of which is made of wood, or is otherwise calculated to harbour rats, must, within a month of service of a notice upon him by the council, cause the floor to be reconstructed of stone, concrete, or other materials impervious to rats. The council may require a butcher to, within one month, completely cover with gauze, to prevent as far as possible the access of flies and dust, all external openings of his shop. Meat exposed for sale must be protected as far as possible from flies and dust.

No shop must be used as or in direct communication with a sleeping chamber.

No shop must be used as or in direct communication with any outhouse, and no outhouse or offensive

matter must be maintained within 15 feet of any window or other opening in the external walls of a shop.

Refuse and dirt must be removed from walls, floors, furniture, and utensils of the shop, and from the premises, at least daily, and the external walls must be washed at least once a week, and must at all times be sweet and free from offence. No putrid matter must be allowed to remain on shop premises, and all metal vessels used in the removal of refuse or dirt must be thoroughly cleansed after use. Vehicles used for the removal of refuse must be kept covered while proceeding loaded through the streets, and must be cleansed when emptied.

Persons employed in the business of butchering in any of its branches, either wholesale or retail, are required to wear overalls and aprons, made of washable material, to completely cover their clothes, which must be washed at least twice a week, and always be kept clean. Smoking must not be indulged in in the shop, and no person who is suffering from any infectious or eruptive disease, or any wound or sore, or from consumption, bronchitis, or any chronic cough or from any offensive ailment, shall serve in or in connection with any shop or butcher's cart or carcass van, or deliver any meat.

Meat must not be wrapped in dirty, printed, or coloured paper, and meat conveyed through the street must be protected from flies and dust. Vehicles and baskets used for the transport of meat must be kept constantly clean and in good repair, and carts must be so constructed with due regard to ventilation, or so covered, as to protect the meat from flies and dust. Persons engaged in the business will be required to wear caps covered with some washable material, which must be kept clean.

An inspector may at all reasonable times, and at any time when work is being done, enter and inspect any shop or any place where meat or refuse is stored or exposed for sale, and may inspect vehicles, baskets, and utensils. The penalty for contravening the ordinances is a fine of not more than £50, nor less than £2.

These suggestions cover the whole ground very fully, and there can be no doubt that if the general principles involved in them are carried into effect a very great advance will have been made in the control of the sale of meat with correspondingly great benefit to the health of the community. It is, moreover, highly satisfactory to learn that the trade, as a whole, heartily approves of these suggestions.

OBITUARY.

Dr. Walter Macgibbon died at his residence, Brunswick-street, Fitzroy, Melbourne, on January 3rd. He was an old resident of North Melbourne, but practised in Fitzroy. He leaves a widow and four children.

Dr. John Clifford, who practised his profession for many years in Cooma, N.S.W., but who in later years devoted his attention to pastoral pursuits, died at Bredbo Station, N.S.W., on December 30th.

We regret to record the death from enteric fever of John Leslie Groundwater, son of Mr. and Mrs. E. Groundwater, of Orange, N.S.W. Deceased was a fourth year medical student at the Sydney University, and was prominent in athletic circles, having been a member of the teams which met the New Zealand footballers, and also of the team which toured Queens-

THE AUSTRALIAN UNIVERSITIES.

Sydney.—The following students have passed the fifth year examination and obtained the degrees of M.B., Ch.M.:—Honours at graduation.—Class I: E. A. Brearley, B.A. (medal), F. C. Rogers. Class II: G. A. Brookes, M. Archdall, H. D. Matthews, G. M. Tomlinson, C. J. Weedon. Subjects of the Fifth Year Examination.—Passed with distinction: E. A. Brearley, F. C. Rogers. Passed with credit: M. Archdall, G. A. Brookes, H. D. Matthews, H. J. Ritchie, A. Colvin, K. St. V. Welch (equal), W. E. Giblin. Passed (alphabetical): E. H. Bottrell, Elsie F. Browne, F. W. D. Collier, G. R. C. Cotton, L. B. Ellwell, H. Flecker, A. W. Fox, R. I. Furber, D. H. Graham, J. S. MacFarlane, R. C. Miller, E. H. Rutledge, F. G. N. Stephens, G. L. Tomlinson, C. J. Weedon. At a meeting of the University senate last month a sum of £100 was granted towards the expenses of Lieutenant Shackleton's expedition in consideration of the invitation extended to Professor David and two other graduates of the University to accompany the expedition, and the promise of geological and natural history specimens for the museums of the University.

Melbourne.—The following candidates have passed the examination for diploma of health, part 1: S. W. H. Summons, M.D.; W. E. Summons, M.D.; J. R. M. Thornton, M.D. *Clinical Medicine and Clinical Surgery*.—The following resolution has been adopted by the faculty of medicine, and is published for the information of candidates:—Candidates failing to pass in clinical medicine or clinical surgery in any examination after January 1st, 1908, must, before re-examination, perform additional attendance at a recognised general hospital, as follows: For those failing in clinical medicine, three months' medical practice; for those failing in clinical surgery, three months' surgical practice. Further work may be required in special cases in any subject.

Adelaide.—At the annual commemoration held on December 18th, 1907, the dean of the faculty of medicine (Dr. Symons) presented (*in absentia*) Julian Augustus Romaine Smith, M.B., B.S., of the Melbourne University, for the degree of bachelor of medicine, *ad eundem gradum*. He said that Dr. Smith was a distinguished student in the faculty of science in the Adelaide University, where he gained the degree of bachelor of science. He afterwards entered the faculty of medicine, and gained the Dr. Davies Thomas scholarship as the best student in the third year. The last two years of his medical course were spent at the University of Melbourne, where he gained the highest distinctions. In his fourth year Dr. Smith secured first-class honours and exhibitions in anatomy, pathology, therapeutics, dietetics and hygiene. In his final year he passed with first-class honours, and won scholarships in medicine, forensic medicine, surgery, obstetrics and gynaecology. The Chancellor conferred the degrees of bachelor of medicine and bachelor of surgery upon the following:—Lionel Oxborrow Betts, Sydney George Leyland Catchlove, Lewis Wibner Jeffries, Archibald Campbell Magarey, Devon Parkhouse, Reginald John Verco, and Arnold Edwin Weidenbach. Winner of the Elder Prize: Jacob Jona (student of the second year). Dr. Davies Thomas Scholars: John Eric McGlashan (third year) and Henry Kenneth Fry, B.Sc. (fourth year). The Everard Scholar: Reginald John Verco, whom the Chancellor congratulated upon having been the best student of the fifth year.

Medico-Ethical and Medico-Legal.

Alleged Conspiracy of Medical Men in West Australia.—A report in the *Melbourne Age* of December 24th states that the Full Court of Western Australia has given judgment in the appeal of Drs. Irwin, Connolly, Sawell and Bradford against a judgment given at Kalgoorlie in September awarding to Dr. R. F. M. Cameron £200 damages and costs for alleged conspiracy against him in his professional calling. The Court unanimously allowed the appeal, and decided that the verdict of the jury and the judgment be set aside, and that judgment be entered for defendants, with costs. The Chief Justice said that from plaintiff's evidence he came to the conclusion that before plaintiff went to Boulder a combination existed among the doctors to put down illegal practices. Defendants and other practitioners agreed that they would not meet or consult with two practitioners who were generally regarded as having committed illegal practices. Plaintiff was warned by Drs. Connolly and Gray that if he met or consulted with one Dr. Anderson they and other practitioners would not meet plaintiff. He, however, determined to associate with Dr. Anderson, and said the other doctors could do what they liked. Defendants did nothing to prevent plaintiff acquiring a practice at Boulder, but when his name was put on the mine lists they perceived the difficulty they might be placed in by their determination not to meet him. They wrote accordingly to the Chamber of Mines in March, 1906. No medical man was compelled to associate with any other practitioner. Two or more practitioners were at liberty to combine not to meet another as long as their object was not to injure the latter in his professional calling. Had it been proved that this was the object of the combination it would have contained an element of illegality necessary to conspiracy. As this had not been proved, the verdict of the jury and the judgment for plaintiff would be set aside. A stay of proceedings was granted till February so that plaintiff might ask the High Court for leave to appeal.

A Cancer Cure.—An inquiry was recently held by the District Coroner into the cause of the death of a middle-aged woman at Malvern, Victoria, on December 12th. Deceased had been suffering from cancer, and was treated by one Joseph H. Davis, who claimed to be an expert in the cure of cancer. In the opinion of Dr. McKeddie, who made the post-mortem examination, death was due to exhaustion. He expressed himself dissatisfied with the treatment the patient had received, and with the use of arsenic in such cases. In recording a verdict of death from pneumonia and exhaustion, the Coroner said that, as there was an independent inquiry as to Davis's treatment of cancer, he would say nothing on the subject. Several medical men had refused to operate upon the deceased, and Davis had done so. The chief point to be decided was whether this treatment of the woman was justified. She was practically at death's door. If it was not a case of manslaughter, it was death by misadventure. Taking all things into consideration, he could not say that Davis was guilty of manslaughter, and he returned a verdict of death by misadventure.

Alleged Neglect by Medical Men.—According to a report in the *Tasmanian Mercury*, the Hobart City Coroner last month held an inquiry into the circumstances concerning the death of a jeweller, who died at his residence in that city. Evidence was given by the Government Analyst and Dr. Campbell which disclosed the fact that death had been caused

by the taking of chloride of potash. The story told by the dead man's relatives was that he informed them, as he lay on the sofa, that he had sent a message to his mother in Heaven, and receiving an answer was going there himself. On the night of his death he came home with two bottles, and after drinking some of the contents exclaimed, "Good-bye, I have taken poison; I have said good-bye to mother." His sisters started off at midnight to seek the aid of a doctor. The first medical man said he would not come unless they got a cab. They did not know where a cab could be got, and hurried off to another medical man. That gentleman said his cold was too severe to allow of his going out on such a night. A third doctor was out. A fourth was said also to be too ill. A fifth had a cold which prevented him accompanying the girls to their home. They returned without a doctor to find their brother dead. The verdict of the jury was death from poison, self-administered. To this was added a rider in which the jurymen expressed their disapproval of the course followed by the doctors upon whom the sisters had called.

The Freeman & Wallace Institute.—The following notice appeared in the *Commonwealth of Australia Gazette* of January 4th, 1908:—"Commonwealth of Australia, Postmaster-General's Department, Melbourne, December 31st, 1907.—Order of the Postmaster-General under section 57 'Post and Telegraph Act, 1901.' In pursuance of the powers conferred upon me by the Post and Telegraph Act, 1901, I hereby order and direct that on and after the date hereof any postal article received at a post-office in the Commonwealth addressed to 'The Freeman & Wallace Electro-Medical and Surgical Institute,' or to 'Messrs. Freeman and Wallace,' either by their own name or by any fictitious or assumed name, or to any agent or representative of theirs, shall not be registered, transmitted or delivered to such persons."

HOSPITAL INTELLIGENCE.

Royal Prince Alfred Hospital, Sydney.—At the monthly meeting of the board of directors of the Royal Prince Alfred Hospital, held last month, it was resolved that additions to the honorary staff of the pathological department be made by the appointment of an honorary assistant pathologist and an honorary pathological chemist, the latter of whom should be connected with the department of physiology at the Sydney University. A letter from the Under-Secretary to the Chief Secretary was received intimating that the proposal to transfer the general beds from the Coast Hospital to the Royal Prince Alfred Hospital had not been adopted. It was resolved to point out to the Minister that, acting on the distinct publicly-expressed statement of the Premier that the scheme was to be given effect to, the board had expended between £2000 and £3000 on the furnishing of the new wards. It was decided to request the Government to take over the furniture, etc., which would otherwise rapidly deteriorate. It was reported that the number of patients now in the hospital was consistently high, and the present bed accommodation was inadequate to admit of the speedy admission of many cases requiring treatment. It was resolved that as Dr. Scot Skirving was about to complete his current term of office as honorary physician, the conjoint board be requested to fill the position, for which, however, Dr. Scot Skirving was eligible.

Hobart Hospital.—At the last monthly meeting of the Hospital Board of Management the

visiting committee reported that the usual visits of inspection had been made to all parts of the institution and authority given to have several items of repairs effected. With reference to the question of the necessity for providing blinds for the front balcony and verandah, the committee, after discussing the matter with the senior house surgeon, decided that it was not advisable to do so, as in the first instance the beds were purposely placed so that the sun's rays could act as a germicide, and if the rays were too strong the patients were provided with sun shades, and secondly, it was pointed out that the proposed blinds would darken the wards too much. As authorised by the board arrangements had been made so that from the 1st January each nurse would have one whole day off duty every month, in addition to the existing leave of absence and time off duty. During the month 225 patients were treated in the hospital; of this number 120 were discharged and nine died, leaving in the institution on the 1st December 57 males and 37 females. Of the 225 in-patients, 80 came from country districts, 70 were paying patients, and 155 were admitted free. The daily average number of occupied beds was 99, as compared with 94 last year, and 84 during November, 1905. In the out-patients' department 147 new cases were treated; casualties, 30; total attendances, 586. The Chairman pointed out that this was the last meeting of the year. The long-desired renovation and painting of the exterior woodwork of the hospital buildings was at last an accomplished fact, and it had decidedly improved the appearance of the buildings, and would certainly add to their durability. To assist the Local Board of Health, cases of diphtheria were taken in at the hospital during the late epidemic, causing great inconvenience to the hospital authorities. There was urgent necessity for the local authority to provide an infectious diseases hospital without delay. In the early part of the year Dr. Wettenhall resigned, and Dr. Jessie Aspinall succeeded him, and had given every satisfaction. The necessity of increasing the nursing staff had been felt for some time. It could not be properly done till more accommodation had been provided. Special reference was made by the chairman to the careful and efficient way the secretary performed his duties, and Dr. Roberts was thanked for all the care he had taken in connection with the work of the hospital.

Launceston Hospital.—Recently the Premier paid a visit to the General Hospital, with a view to a general inspection of the institution, and to make personal inquiry into certain complaints against the management. The Premier found that some of the complaints made had been greatly exaggerated, and on the whole, he was thoroughly convinced that the management of the institution was on sound lines. The Premier drew the attention of members of the board to several little points which, in his opinion, would make for increased regularity. Afterwards, Dr. Irvine waited on the Premier, and asked him to receive a deputation from the medical profession. Mr. Evans pointed out that there could be no change in the system of management until the Act was amended, and with Parliament now in recess that could not be done for some time. He advised the deputation that the matter be deferred until his next visit, and this suggestion was accepted.

Dubbo Hospital.—At the meeting held last month of the hospital committee a letter was read from Dr. H. E. Cribb, honorary secretary of the Western

Medical Association, stating that at the half-yearly meeting of the latter body, held on the 27th ultimo, at Bathurst, the following resolution had been carried and ordered to be forwarded to the Dubbo Hospital committee:—"That the appointment of an unqualified man as assistant in the operating room when a medical man is available, is inimical to the best interests of the profession and the public." This resolution by the Association was consequent upon the appointment, at the last meeting of the hospital committee, of a local chemist as an assistant in the operating-room.

St. Vincent's Hospital, Melbourne.—The Melbourne *Age* of December 31st states that an inspection of St. Vincent's Hospital, Fitzroy, was recently made by the engineering inspector of the Board of Health, who reported that the hospital was excessively overcrowded, there being 124 patients, whereas, in accordance with the board's standard of requirements, there was only accommodation for 76. The Sisters of Charity have sent a reply to the Board of Health. In it they state that it was their original intention to provide accommodation for at least 200 patients by building a hospital five stories high on the present site in Victoria-parade. The number of patients in the hospital at the time of the inspector's visit was 110, and there were 14 patients in St. Evin's private hospital, an entirely separate building on the same site. The hospital could comfortably accommodate 100 patients without any overcrowding whatever. When beds in the wards were not available, emergency cases and persons recommended for open air treatment were occasionally and temporarily accommodated in the lobbies and on the balconies. The number of patients would be reduced as soon as possible, but it was feared that great hardships would be caused to deserving cases. The Sisters asked that, in view of the ideal site, the unusual height of the wards and corridors, and the perfect system of ventilation, the board would allow the maximum number of beds to be kept in use until funds would permit the authorities to erect the front section of the new building.

MEDICAL NOTES.

Farewell to Professor A. Liversidge.—Professor A. Liversidge was tendered a farewell dinner last month at the A.B.C. Rooms, Pitt-street, Sydney. Mr. H. Deane (president of the Royal Society of New South Wales) presided, and had on his right Professor Liversidge, and on his left Judge Docker. The gathering also included prominent representatives of the Sydney University, the Royal Society, and kindred bodies. Eulogistic references were made to the guest by many of those present, who spoke of the great services he had rendered to the State in the advancement of science, and also of his personal qualities. Professor Liversidge contemplates leaving for England after 35 years association with the University, of which he was professor of chemistry. At a meeting presided over by Sir Normand MacLaurin, at the Royal Society's House, to consider means of commemorating Professor Liversidge's life's work in the cause of education and science in Australasia and his services to the State, it was decided to request Professor Liversidge to allow his portrait to be painted, with a view to its presentation to the University. The meeting elected Mr. David Carment as honorary treasurer, and as honorary secretaries Mr. Barff, Mr. Maiden, and Professor Pollock. It is

requested that subscriptions be sent to Mr. David Carment, A.M.P. Society, 87 Pitt-street, Sydney.

Inebriates in Victoria.—The City Court representative of the Melbourne Total Abstinence Society states that the new method for dealing with persons charged with drunkenness by allowing an offender a chance after he had signed the pledge is working very well. Since October, when the system was adopted, 750 persons had signed the pledge, and only 121 had broken it.

Australian Historical Society.—At the Australian Historical Society's annual general meeting, which was held last month at the Royal Society's House, Mr. J. H. Maiden (president) in the chair, the report showed that valuable work had been done by the society in the interests of Australian history. Numbers of highly interesting and instructive papers had been prepared by the members. As these had had considerable care bestowed upon their preparation, necessitating deep research, they are bound, when published, to become a valuable asset to the historical literature of the Commonwealth. The membership at the close of the society's year stood at 115 (financial), though deaths and resignation had caused a slight decrease in the membership as compared with the figures of the previous year. The official journal of the society is becoming increasingly popular, and it is intended to further enlarge its scope.

PERSONAL ITEMS.

According to a cablegram published in the *Sydney Morning Herald* of January 2nd, Sir Bradford Leslie, K.C.I.E., advises Mr. John Morley, Secretary of State for India, to ask the New South Wales Government to direct Dr. Ashburton Thompson, President of the Board of Health of that State, to visit India, and report on measures taken for the prevention of the spread of the plague.

Surgeon Major General P. S. Turnbull, K.H.S., is at present on a visit to Auckland. He joined the Indian medical service in 1860, and, having acted with distinction in India for many years, retired in 1896. He was appointed honorary surgeon to His Majesty the King in 1902.

Dr. Woodward, who has been Medical Officer for Railways and Tramways in New South Wales since 1883, has retired. He formerly held the rank of Surgeon General in the Imperial Medical Service.

Dr. Andrew Houson, of Sydney, has been elected President of the Australian Historical Society.

On January 4th last a complimentary launch picnic to the Old Bar was tendered by friends of Dr. Gormley, Government Medical Officer for Taree, N.S.W., who has left on a trip to Great Britain. A presentation was made to him of a travelling case by Mr. A. Gates, police magistrate, on behalf of those present. Mr. Charles Boyce, Mayor of Taree, presided.

Dr. A. W. Howitt, a well-known Australian ethnologist, fell seriously ill at a meeting at Gippsland on the 7th inst. He was considerably improved a few days after. Dr. Howitt, who is 71 years of age, was the leader of the party which was despatched in 1861 for the relief of the Burke and Willis expedition. He was also in charge of the second expedition, which brought back to Adelaide the remains of the explorers.

Dr. T. J. Wallace has removed from Killarney, Q., to Mount Perry, via Bundaberg, Q.

Dr. William Andrews has been elected to the Albert Ward of the Melbourne City Council.

Dr. M. O'Connor has resigned his position as a member of the Board of Management of the Perth Public Hospital.

Dr. R. A. Parker has resigned his position as Junior Resident Medical Officer at the Perth Public Hospital.

Dr. Christina L. Goode, of Adelaide, has returned from London via Canada and Japan. Dr. Goode studied at the Universities in Adelaide and Melbourne, and has for some years past been resident medical officer at the West Ham Infirmary, London.

Dr. G. W. Parramore, late of Mittagong, N.S.W., and Pittsworth, Queensland, has succeeded to the practice of Dr. Costelloe at Hillgrove, N.S.W.

Professor Anderson Stuart has left Sydney on a trip to Europe.

Professor Allen has been elected a member of the University Council, Melbourne, for a period of five years.

Dr. R. E. Roth, D.S.O., on his return from a trip to Europe, was entertained at a smoke concert at the A.B.C. rooms on December 21st by the members of the Australian Army Medical Corps, of which he is the commanding officer. Major Morgan-Martin presided, and the visitors included Lieutenant James (representing Brigadier-General Gordon), Major Marshall, Captain Stokes, Captain Read, Captain Dick, and Lieutenant Mason.

Dr. Mabel Crutchfield has resigned her position as medical officer at the Boulia Hospital, Queensland.

Dr. Thomas Kinley Hamilton has been re-appointed a Commissioner of the National Park, South Australia.

Dr. Malcolm Gillies has been elected a councillor of the town of Bowen, Queensland.

Dr. Alfred F. Stokes, a graduate of the Adelaide University, has received an appointment as house surgeon to the Great Ormond Street Hospital for Sick Children, London.

Dr. R. S. Stephenson, who has been on a visit to Great Britain and the Continent, has returned to Dunedin, N.Z.

Dr. Rosa Collier, of Middlemarsh, N.Z., was recently entertained at a social by the members of the St. John Ambulance Association, and presented with a gold-mounted fountain pen in a morocco case, suitably inscribed.

Dr. McKibbin has left Owaka, N.Z., for Christchurch, N.Z., having disposed of his practice to Dr. Pemberton.

Dr. J. Hampton Cahill has commenced practice at Canowindra, N.S.W.

Dr. P. J. Godfrey, medical officer to the Raleigh District Hospital, Bellingen, N.S.W., has sold his practice to Dr. Muir, and is leaving the district.

Dr. Constance Binney has left Wer Waa, N.S.W., for Queen Victoria Hospital, Melbourne.

Dr. J. E. F. McDonald, late of Wynnum, Queensland, has joined in partnership with Dr. A. Stewart, of Dalby, Queensland.

Dr. C. C. Cooks, for many years medical superintendent at the hospital at Wentworth, N.S.W., died early in January, 1908, after an illness extending over three years.

Dr. John Costelloe has succeeded to the practice of Dr. Wm. Irwin, of Moree, N.S.W. Prior to his departure from Hillgrove, Dr. Costelloe was entertained and presented with a liqueur-stand. The members of the M.U. also presented him with an illuminated address. Dr. G. W. Parramore succeeds Dr. Costelloe at Hillgrove, N.S.W.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

The following persons to be Public Vaccinators for the districts set opposite their names, respectively, viz.:—

Pett, Henry, M.B., D.P.H., to be Government Medical Officer and Vaccinator at Gilgandra, vice Mario Giommi, resigned.

Foster, George Williams, M.B., B.S., to be Government Medical Officer and Vaccinator at Balranald, vice Daniel D. Cade, resigned.

Willis, C. A., to be Medical Officer at the Wee Waa Hospital, vice Constance Binney, resigned.

The following appointments for 1908 have been made by Sydney Hospital Board:—

First Senior Resident Medical Officer, Dr. Archie Aspinall; Second Senior Resident Medical Officer, Dr. Binns; Resident Pathologist, Dr. Stokes; Resident Skiagrapher, Dr. Edwards. The following new Resident Medical Officers were appointed:—Drs. F. C. Rogers, M. Archdall, H. J. Ritchie, A. E. Colvin, W. E. Giblin, F. W. D. Collier, and R. J. Furber.

VICTORIA.

Binney, Dr. Constance, to be Medical Officer to the Queen Victoria Hospital, Melbourne.

The following persons to be Officers of Health for the districts set opposite their names, viz.:—

Johnston, John, M.D., for the town of Williamstown, vice Andrew Honman, M.R.C.S., resigned.

Boyes, William Isaac, M.B., for the Borough of Wangaratta, vice Edward John McCardel, M.D., resigned.

Docker, Wyatt Bristow, M.B., for the Shire of Euroa, vice Charles Werner Gunst, L.R.C.P., resigned.

Slemaan, James Henry, M.B., for the Port of Portland, vice W. Docker, M.B., resigned.

Clarke, Percy Gowan, L.R.C.P., for the Rosedale and Denison Riding of the Shire of Rosedale.

Hollow, John Thomas, M.B., to be Medical Superintendent of the Metropolitan Hospital for the Insane at Kew, during the absence on leave of Walter Herbert Barker, M.R.C.S.

The following persons to be public Vaccinators for the districts set opposite their names, respectively, viz.:—

Docker, Wyatt Bristow, M.B., for North-eastern District, vice Charles W. Gunst, L.R.C.P.

Johnston, John, M.D., for the Metropolitan District, vice Andrew Honman, M.R.C.S., resigned.

Webb, Francis, Edward, M.B., for South-western District, vice D. O. White, M.B., resigned.

MacKenzie, John Hugh, F.R.C.S., for South-eastern District.

SOUTH AUSTRALIA.

Carr, Hampden, L.R.C.S.; Leitch, Oliver, M.B., B.S.; and Wilkinson, Arthur Norris, M.R.C.S., to be Honorary Medical Officers at the Port Pirie Hospital.

Smith, Dr. O. W., to be Officer of Health for the town of Clare Board of Health.

The following gentlemen to be Medical Officers to attend to the Destitute Poor and Aborigines within the districts set opposite their names, viz.:—

Souter, C. H., Clarendon and Kondoparinga.

Shanahan, P. F., Hawker, township (ex aborigines).

Marshall, C. B., Franklin Harbour.

WESTERN AUSTRALIA.

Griffiths, J. N., to be Officer of Health, Victoria Park Local Board, during the temporary absence of Dr. Teague.

Blackall, W. E., to be Acting Inspector-General of the Insane, during the absence on leave of S. H. R. Montgomery.

Hill, Charles Herbert, to be Acting District Medical Officer, Kookynie.

NEW ZEALAND.

Louison, Maurice George, M.B., to be a Public Vaccinator for the district of Christchurch, vice Dr. Shone.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

NEW SOUTH WALES.

Archdall, Mervyn, M.B. (Syd.), 1908.
Brearley, Edwin Andrew, M.B. (Syd.), 1908.
Colvin, Arthur Edmund, M.B. (Syd.), 1908.
Fox, Arthur Wesley, M.B. (Syd.), 1908.
Furber, Rupert Iggulden, M.B. (Syd.), 1908.
Graham, David Harman, M.B. (Syd.), 1908.
MacFarlane, John Stuart, M.B. (Syd.), 1908.
Miller, Robert Christy, M.B. (Syd.), 1908.
Rogers, Francis Cecil, M.B. (Syd.), 1908.
Hunter, David Guthrie, M.B., B.S. (Glasg.), 1905.
Rutledge, Edward Hamilton, M.B. (Syd.), 1908.
Allen, Thomas Percival, L.R.C.P. (Lond.), 1909; M.R.C.S. (Eng.), 1900.
Juak, David, M.D., M.A.O., R.N. (Irel.), 1887.

SOUTH AUSTRALIA.

Haines, Arthur, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1894.

TASMANIA.

Love, Joseph, M.B. (Melb.), 1907.

VICTORIA.

McKelvey, John Lawrence, M.B. (Syd.), 1905.
Dodgson, Maud, M.B. (Melb.), 1907.
Downing, Harold David, M.B. (Melb.), 1907.
Good, Robert Norman Scott, M.B., Ch.B. (Melb.), 1907.
Gray, Herbert John, M.B. (Melb.), 1907.
Love, Joseph, M.B. (Melb.), 1907.
McMahon, John Joseph, M.B. (Melb.), 1907.
Park, Charles Leslie, M.B. (Melb.), 1907.
Phillips, Samuel Henry, M.B. (Melb.), 1907.
Rutter, John Hemphill, M.B., Ch.B. (Melb.), 1907.
Shaw, Charles Gordon, M.B., Ch.B. (Melb.), 1907.
Shelton, John Grantley Vincent, M.B. (Melb.), 1907.
Stephens, Carl Vivian, M.B. (Melb.), 1907.
Tipping, Frank, M.B. (Melb.), 1907.
Trincea, Alfred John, M.B. (Melb.), 1907.
Wilson, William Edgar, M.B. (Melb.), 1907.
Additional qualifications registered:—
Hooper, John William Dunbar, M.D. (Durham), 1907.
Forsyth, Robert Leslie, M.D. (Melb.), 1907.
Patterson, Sydney Wentworth, M.D. (Melb.), 1907.
Tregear, William George Herbert, Ch.B. (Melb.), 1902.
Turnbull, Henry Hume, Ch.B. (Melb.), 1905; M.D. (Melb.), 1907.

BIRTHS, MARRIAGE, AND DEATHS.

BIRTHS.

BELL.—December 21, at "Voreshead," Berry-street, North Sydney, the wife of H. C. Rikard Bell, M.B., Ch.M. (Coolah)—a son.
CRIVELLI.—December 14, at "Aaron," Albert Park, Melbourne, the wife of Dr. Crivelli—a son.
HAMILTON.—January 4, at Roma, Unley, S.A. the wife of Dr. R. H. Hamilton—a daughter.
KELLY.—January 2, 1908, at "Iroquois," Chatswood, Sydney, to Dr. and Mrs. D. Kelly, of North Sydney—a son.
KITCHEN.—December 24, at "Omra," South Melbourne, the wife of Dr. J. J. Kitchen—a daughter.
MCDONAGH.—December 28, at 14 College-street, Sydney, to Dr. and Mrs. McDonagh—a daughter.
PHIPPS-WAUGH.—November 18, to Dr. and Mrs. R. Phipps-Waugh, Parramatta, N.S.W.—a son.
LUDOWICI.—December 26, 1907, at Martin-road, Centennial Park, Sydney, the wife of E. Ludowici, M.B., Ch.M.—a daughter.
VERNON.—December 7, at Shirley, Beecroft, Sydney, the wife of Dr. Murray M. Vernon—a son.

MARRIAGE.

MARSHALL-GILLESPIE.—December 31, 1907, at the Manse, Claremont, W.A., by the Rev. J. H. Fordyce, M.A., Charles Edward Marshall, M.B., L.R.C.P. (Edin.), to Edith Jane, elder daughter of W. Gillespie, Craigielea, Grangemouth, Scotland.

DEATHS.

CLIFFORD.—December 23, at his residence, Bredbo, N.S.W., Dr. John Clifford, aged 58 years.
STEVENSON.—December 24, at Traquair, Petersburg, Emma Blanche, wife of James R. Stevenson, M.B., C.M., South Australia.
BRETON.—December 27, 1907, at her residence, Upper Hawthorne, Melbourne, Agnes Frances, widow of late Dr. Henry Breton.

MACGIBBON.—January 3, at his late residence, "Arbilot," Brunswick-street, Fitzroy, Melbourne, Walter Macgibbon, M.D., aged 55 years.

MACLAURIN.—January 7, 1908, at her late residence, 155 Macquarie-street, Sydney, Eliza Ann, wife of Sir Normand MacLaurin, M.D., M.L.C.

BOOKS RECEIVED.

A Text-book of Mental and Sick Nursing. By Robert Jones, M.D., B.S., London. A volume of xix + 215 pages. Price, 3s 6d net. London: The Scientific Press Ltd., 28 Southampton-street, Strand, W.C.

Thirty-third Annual Report of the Secretary of the State Board of Health of the State of Michigan for the fiscal year ending June 30th, 1905. Lansing, Michigan Wynkoop Hallenbeck Crawford Co., State Printers.

We have received from Messrs. Blackie & Son, Ltd., 50 Old Bailey, London, the following two volumes:—

1. Health in the School, or Hygiene for Teachers. By J. S. C. Elkington, M.D., D.P.H., Chief Health Officer, Department of Public Health, Tasmania. Size, octavo; number of pages, 192.

2. The Laws of Health: A Handbook on School Hygiene. By C. C. Douglas M.D., D.Sc. Size, octavo, of 240 pages. Price, 3s net.

A System of Radiography, with an Atlas of the Normal. By W. J. Bruce, M.D. Size, Imp. folio; number of pages, xi + 110. Price, 15s net. London: H. K. Lewis.

American Practice of Surgery. Edited by J. D. Bryant, M.D., and A. H. Buck, M.D. Vol. III. To be complete in eight volumes. Price, 31s 6d per volume. New York: Wm. Wood & Co. Sydney: L. Bruck.

Trypanosomes and Trypanosomiasis. By A. Laveran and F. Mesnil. Translated and much enlarged by David Nabarro, M.D., B.Sc., with coloured plate and 81 figures in the text. Number of pages, xx + 539; size, royal octavo. Price, 21s net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

Report on Plague in Queensland, 1900-1907 (February 26th, 1900, to 30th June, 1907). By B. Burnett Ham, M.D., M.R.C.S., D.P.H. Brisbane: Government Printer.

A System of Medicine, by many writers. Edited by T. Clifford Allbutt, M.D., F.R.C.P., and H. D. Rolleston, M.D., F.R.C.P. Vol. iii. London: St. Martin's-street, MacMillan & Co. Price, 25s.

Squint and Ocular Paralysis. By E. Lucas Hughes, M.R.C.S., L.R.C.P. Number of Pages, x + 206. Size, 8vo. Price, 6s 6d net. London: H. K. Lewis.

Pelvic Inflammations in the Female, being the Ingleby Lectures delivered at the University of Birmingham. By Thomas Wilson, M.D. (Lond.), M.Ch. (Birm.), F.R.C.S. (Eng.). Bristol: John Wright & Co. Price, 3s 6d net.

The Bacteriological Examination of Disinfectants. By Wm. Partridge, F.I.C., with a preface by C. E. P. Fowler, F.R.C.S. London: The Sanitary Publishing Co., Ltd., 5 Fetter Lane, E.C. Price, 2s 6d net.

Text-book of Organic Chemistry for Medical Students. By G. V. Bunge, Professor of Physiological Chemistry, University of Basel. Translated, with additions, by R. H. Aders Plimmer, D.Sc. (Lond.), Assistant Professor of Physiological Chemistry and Fellow of the University College, London. London, 39 Paternoster Row: Longmans, Green & Co. 1907. Price, 6s net.

Preventable Blindness: An Account of the Disease known as the Ophthalmia of the New-born, and of its Effects, with a Plea for its Suppression. By N. Bishop Harman, M.B. (Cantab.), F.R.C.S. (Eng.). London: Baillière, Tindall & Cox. Sydney: L. Bruck. Demy 8vo. Price, 2s 6d net.

Cancer. By G. Sherman Biggs, F.R.C.S. (Edin.). Number of pages, 95. Crown 8vo. Price, 3s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

The Reduction of Cancer. By the Hon. Rollo Russell. London: Longmans, Green & Co., 39 Paternoster Row. Crown 8vo. Price, 1s 6d net.

Essentials of Human Physiology. By D. Noel Paton, M.D., B.Sc., F.R.C.P. (Edin.). Third edition. Edinburgh and London: Wm. Green & Sons. Number of pages, 477, fully illustrated. Price, 12s net.

Aids to Pathology. By Harry Campbell, M.D. (Lond.), L.R.C.P. Number of pages 184, with 10 illustrations. Foolscap 8vo. Price, cloth, 3s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

Studies in Laboratory Work. By C. W. Daniels, M.B. (Camb.), M.R.C.S. (Eng.), and A. T. Stanton, M.D. (Tor.), M.R.C.S. (Eng.). Second edition. Number of pages xiv + 491. Price, 16s net. London: Great Litchfield Street, John Bale, Sons & Danielsson.

The following three volumes have been received from Messrs. W. B. Saunders, of Philadelphia and London, per Mr. Jas. Little, Melbourne:—

1. A Text-book of the Practice of Medicine. By J. M. Anders, M.D. Eighth revised edition. Octavo of 1317 pages; fully illustrated. Price, 24s.

2. Diseases of the Genito-Urinary Organs and the Kidney. By R. Greene and Harlow Brooks, M.D. Octavo of 536 pages; fully illustrated. Price, 21s.

3. The Operating Room and the Patient. By Russel S. Fowler, M.D. Price, 10s.

Movable Kidney and other Displacements and Malformations. By David Newman, M.D., F.F.P.S.G. London: Longmans, Green & Co., 39 Paternoster Row. 1907. Price, 5s net.

Syphilis in the Army, and its Influence on Military Service: its Causes, Treatment, and the means which it is advisable to adopt for its prevention. By Major H. C. French. London: John Bale, Sons & Danielsson. Price, 6s net.

Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. vi. Lumbar Region—Nephrotomy. Edinburgh and London: Wm. Green & Sons.

An Index of Treatment by Various Writers. Edited by Robt. Hutchison, M.D., F.R.C.P., and H. Stanfield Collier, F.R.C.S. Bristol: John Wright & Co. 1907. Price, £1 1s.

The Opsonic Method of Treatment. A Short Compendium for General Practitioners, Students and others. By R. W. Allen, M.B., B.S. (Lond.). Number of pages, 138 + ix. Demy 8vo. Price, 5s net. London: H. K. Lewis.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. R. Worrall, Sydney; Dr. W. J. S. McKay, Sydney; Dr. H. E. Gibbs, Hon. Secretary, New Zealand Branch B.M.A.; Mr. L. Bruck, Sydney; Messrs. Scott & Bowne, Sydney; Dr. A. A. Hamilton, Adelaide; Dr. B. B. Ham, Brisbane; Nurses Anderson and Monson, Sydney; Messrs. Baillière, Tindall & Cox, London; Edward Linstead, Esq., F.C.S., etc., London; Mr. G. T. Taylor, Hobart; Dr. J. E. F. McDonald, Dalby, Queensland; Dr. H. Russell Nolan, Sydney; Dr. A. B. Brockway, Brisbane; The Lambert Pharmaceutical Co., St. Louis, U.S.A.; Mr. A. Ollé, Sydney; Dr. W. T. Hayward, Adelaide; Dr. Fourness Barrington, Sydney; Mr. F. Schmidlin, Sydney; Dr. Herbert Marks, Sydney, Messrs. Street & Co., London; Professor Welsh, Sydney; The United Typewriter and Supplies Co., Sydney; Dr. H. Merten, Truro, S.A.; Mr. E. J. Forbes, Sydney; Messrs. Fassett & Johnson, Sydney; Dr. Alex. Marks, Brisbane; Dr. W. G. Armstrong, Sydney; Dr. H. S. Newland, Adelaide; Miss McGahey, Sydney; Dr. A. Chenery, Sale, Victoria; Manager of Bank of Australasia, Broad Arrow, W.A.; Secretary Pharmaceutical Society of Australasia, Melbourne; Dr. A. E. Martin, Perth, W.A.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 317.

SYDNEY, FEBRUARY 20TH, 1908.

VOL. XXVII., No. 2.

A CASE OF ARRHYTHMIA OF THE HEART.

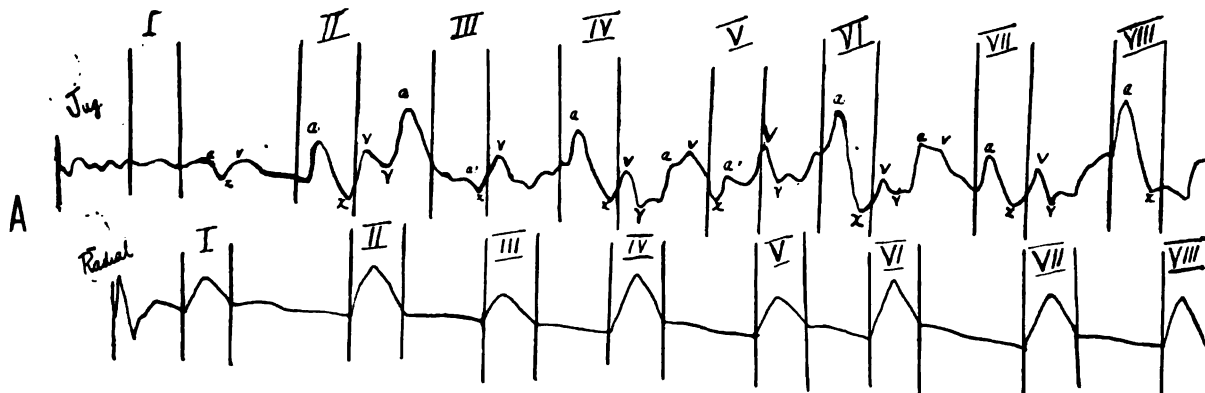
By J. Macdonald Gill, M.D., Hon. Assistant Physician to the Sydney Hospital, Sydney.

THE patient, who forms the subject of my remarks to-night, is a man 53 years of age, a carpenter by trade. He has always been sober and temperate in his habits, and denies any history of syphilis. He enjoyed good health till October, 1905, when he had a severe attack of influenza; since then he has suffered from "shortness of breath." He was in Little Bay Hospital from November 9th to December 27th, 1906; re-admitted on March 5th, and discharged on May 14th, 1907. While in the hospital there was little to be noted besides the extreme irregularity of the pulse and the great shortness of breath which required his being kept in bed during almost the whole of his stay. The urine was 1022 specific gravity, acid, and contained no albumen; the systolic blood pressure was 128 mm. Hg. He left the hospital much improved and was able to resume his work as a carpenter. He came up to Sydney again in August, suffering from a slight attack of bronchitis, which soon got better. I took more tracings on August 27th. On September 12th it is noted that his breathing is fairly easy and that he can get about and do ordinary work. The blood pressure (systolic) is 130 mm. Hg. The heart apex is in the sixth interspace in the nipple line, rather faint; localised, not diffuse. The heart dulness is normal; heart sounds normal; no epigastric pulsation and no enlargement of the liver. Since then he has returned to his work on the South Coast, and is now in fairly good health. He appeared to receive little benefit from digitalis or other cardiac tonics. The real interest in the case is in the tracings of the venous pulse. When I first saw him, on March 29th, there was marked pulsation in the right jugular bulb; when I saw him the second time, on May 2nd, the pulsation was still well marked; on August 27th, only a faint flicker in the internal jugular was noticed. On the first occasion the tracings were partly spoilt by the hardening of the sterno-mastoid, brought on by the difficulty in breathing the patient was suffering from.

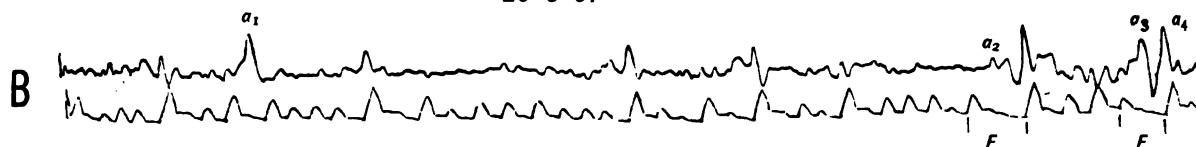
However, quite enough remains to fully explain the nature of the case. The explanation I give of these tracings is derived from a paper published by Dr. Mackenzie in the *British Medical Journal*, March, 1904, and what I have to say of this case entirely confirms his observations. I use the same annotation as he does:—*a* represents the auricular wave; *v* the ventricular wave; *c* the communicated wave from the carotid artery; *x* the auricular diastole; *y* the ventricular diastole; *E* represents the sphygmio period, during which the semilunar valves are open, and blood is escaping from the ventricle into the artery; corresponding points are carefully measured out by compasses from the ordinates, which are clearly indicated in each tracing. On March 29th the pulse was extremely irregular and could not be counted at the wrist; but, counting it by the sphygmogram, 120 definite beats were made per minute; in addition to these there were a certain number of abortive systoles, which although not indicated (or perhaps very slightly) in the radial tracing, yet gave definite waves in the jugular tracing. On May 2nd the radial pulse is much less irregular and much stronger, being a little over 100 per minute; abortive systoles are still present, and are indeed very evident. On August 27th the radial pulse is about 90, no abortive systoles being noticed.

Now we will examine the tracings in detail. In the short tracing A I have numbered the radial waves I, II, III, etc., for convenience of reference; wave I we can neglect, as the jugular tracing is imperfect, perhaps owing to hardening of the sterno-mastoid; between I and II there is a long interval with faint indications of a wave, but the vein shows a definite depression, *x*, due to diastole of the auricle, followed by a ventricular regurgitant wave, *v*. Particular attention should be paid to wave II. The space between the vertical lines is the sphygmio period *E*, i.e., the period during which blood is escaping from the ventricles into the aorta and pulmonary artery, the ventricles being in a state of contraction. This period of the jugular tracing is occupied by a

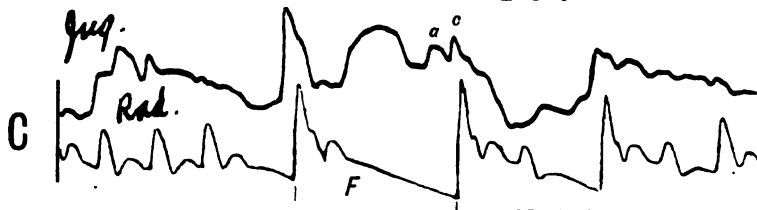
29-3-07



29-3-07



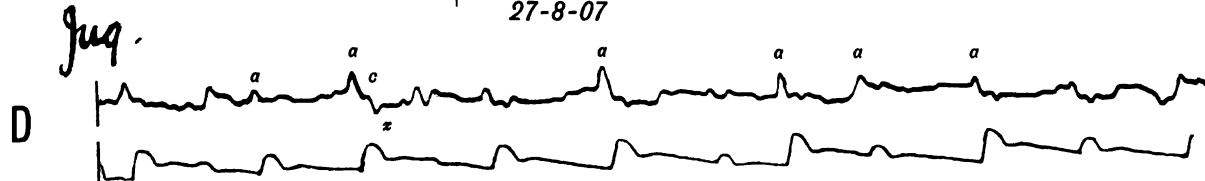
2-5-07

**NOTE.**

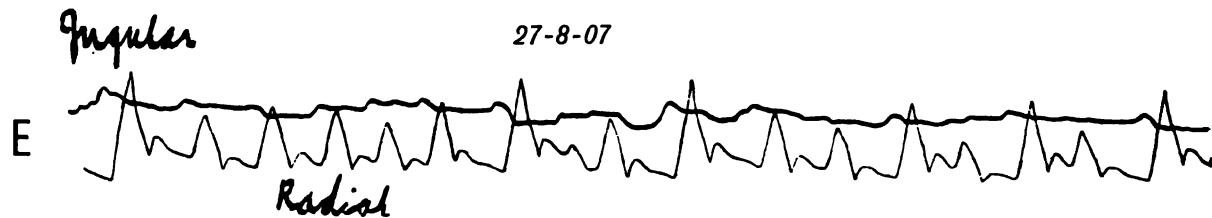
Tracing F is from another case, and is introduced here to show the normal sequence of events in the cardiac cycle. The tracing can readily be understood from the text.

Tracings C, D and E are reproduced to scale; B, owing to exigencies of space, is about half the original; A and F are about twice as large as the originals.

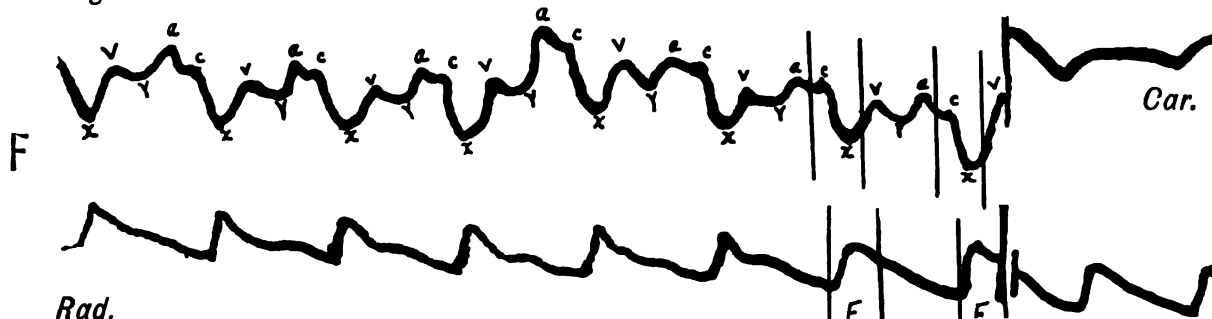
27-8-07



27-8-07



Jug.



large wave *a*, followed by a well marked depression, *x*, with the wave *v* commencing, but rising to a greater height afterwards, that is the auricle contracts and dilates again, during the period the left ventricle is contracting; in other words, the auricles and ventricles contract simultaneously, but the auricular contraction is much shorter than the ventricular. (It is necessary to point out here that the two auricles always contract together, and the two ventricles almost always; these tracings give no record of the contraction of the left auricle.) The next auricular wave *a* has interrupted the fall in the pressure in the vein caused by the powerful suction action of the dilating right ventricle; from the size of this wave it is probable that there was a ventricular contraction at the same time, although there is no indication of a wave in the radial tracing. Sphygmie period III is occupied by a small wave preceding a depression, which, following the arguments used in explaining the waves in the other sphygmie periods, must be due to a feeble auricular contraction and diastole; the argument used by Mackenzie is that the depression must be due to auricular diastole, as the ventricle is contracting at that time, therefore the preceding wave must be auricular, as diastole must be preceded by systole. This period is followed by a ventricular regurgitant wave, *v*. Using the same arguments, sphygmie period IV is occupied by a large wave, *a*, due to the simultaneous contraction of auricle and ventricle, followed by a well-marked depression, *x*. The large wave preceding the next sphygmie period is probably a combined wave, *a* being the apex of the auricular wave and *v* of the ventricular wave which, in this case, commences earlier than usual, because no, or almost no, blood has escaped through the semilunar valves into the artery, there being no radial wave, and as the contents of the ventricle must go somewhere, when it contracts a large wave is produced in the vein. Hence very often a feeble contraction of the ventricle may produce no radial wave, but a large venous wave, the reason being that considerable force is required to drive blood through the semilunar valves into the artery, but not much force is required to distend the vein, as the venous pressure is never high. Hence a feeble contraction of the ventricle may not be strong enough to open the semilunar valves, and all

blood goes backwards into the auricle and vein. One can understand that if *v* occurred a little earlier there would be a large rounded wave, a condition which actually appears in tracing *c*. In sphygmie period V, as in sphygmie period III, I can only suppose that *a* is due to auricular contraction, as it is followed by a definite depression, *x*; in this case, then, the auricle contracted once very feebly. In sphygmie period VI, auricle and ventricle again contract together, the small ventricular wave, *v*, corresponds to the large radial wave, since in a powerful and therefore effective contraction of the ventricle most, if not all, its contents naturally pass into the artery, leaving little to pass backwards through the tricuspid orifice. Between VI and VII another large wave appears in the jugular, unrepresented by any wave in the radial; this wave is probably of the same nature as that between IV and V, the only difference being that the auricular wave reaches a greater height before the ventricular appears. In radial wave VII auricle and ventricle again contract together, but the auricular wave is not a large one. In VIII auricle and ventricle again contract together; this wave is very similar to waves IV and VI.

To summarise the analysis of this tracing we have seven undoubted radial beats to deal with; in five of these the auricle undoubtedly contracted simultaneously with the ventricle, producing large jugular beats in four cases; in the other two, the nature of the waves in the jugular are doubtful, but are also probably auricular. In addition to these seven waves, we have three abortive systoles, in one of which at least it is probable that auricle and ventricle contracted together.

Tracing B is even more interesting than A. In parts the tracing is poor, probably owing to hardening of the sterno-mastoid already mentioned. After the detailed examination of A it is unnecessary to go as fully into B. It is to be noted that the big auricular waves are all obviously synchronous with radial beats except those marked *a*₁, *a*₂ and *a*₃; *a*₁ immediately follows the ventricular wave of the previous beat, obliterating the usual depression caused by the ventricular diastole; although there is no evidence of a wave in the radial, yet there was probably an imperfect systole, which, coming immediately after the previous ventricular contraction, would be a feeble one; *a*₂ is followed by a well-marked ventricular wave and depression; *a*₃ corresponds to a faint wave in the radial, with

which it is synchronous. The space *r* is equal to two ordinary beats, so there must have been an extra systole; further, the enormous depression *x* following this wave can only be due to auricle and ventricle dilating simultaneously, and if they dilated together they must have contracted together, virtually forming one chamber for the time being. When tracing *c* was taken the man had much improved. The space *r* shows an abortive systole, the rounded wave in the jugular tracing being very noticeable and already explained in describing *a*.

The carotid wave is very well marked, and is noticed to precede the radial by a short interval; the wave *a* occupies the normal position of the auricular wave, i.e., immediately before the ventricular systole, as indicated by the carotid wave.

The tracing *d* shows the sphygmie period occupied by the auricular diastole *x*; the wave *c* occurs on the downstroke of the auricular wave *a*, which always occurs in its proper situation, i.e., before the sphygmie period. The auricular is by far the most prominent wave, the ventricular being either absent or very nearly so.

It should be noted that for the most part a well-marked radial beat is preceded by a large auricular wave. Tracing *e* shows that the radial pulse is fairly good. The jugular tracing should be neglected.

To summarise the features of the tracings. The first tracing showed that as a rule auricles and ventricles contracted simultaneously, abortive systoles being frequent and more largely represented in the jugular than in the radial—in fact, often quite absent in the latter. The last tracings showed that the normal sequence of events in the cardiac cycle now took place almost invariably, this coinciding with the general improvement in the patient's condition.

Mackenzie has shown that in such cases as this the stimulus to contraction probably arises at some point between auricle and ventricle, instead of as normally at the place where the great veins open into the auricle. It has been shown by the physiologists that a contraction wave starting at this point can travel both backwards and forwards at the same time—i.e., forwards to the ventricle and backwards to the auricles. Physiological experiments then quite bear out the explanation of these cases derived from a careful examination of the venous pulse. Since Mackenzie published his paper (March, 1904)

anatomical research has widened our knowledge of the heart very considerably. Without going into the matter very fully, a brief reference will be of some interest. First, in 1906, Tawara fully worked out the anatomy of the muscular connection between auricle and ventricle. He showed that there is only one connecting band between the two; that this band is directly continuous with the muscular fibres of the auricle above and with those of the ventricle below. It is composed of muscular fibres, which are different in appearance from the ordinary muscle fibres—i.e., possess no cross-striation and very few fibrillæ, what there are of these being near the margins of the cells. Although the ordinary function of this band is conduction, yet it may under special circumstances apparently originate a contraction. It is probable, therefore, in this case, that the stimulus to contraction arose in the main trunk of this band, and by virtue of the special function of conduction possessed by its fibres, passed forwards and backwards at the same time, thereby setting up a simultaneous contraction in both auricles and ventricles. The question arises why the contraction wave did not start in the usual place—i.e., that portion of the auricles where the great veins empty themselves, where, as Keith has quite recently shown, muscular fibres similar in appearance to those of the auriculo-ventricular band may be found. The explanation is that the auricular muscle was chiefly, if not solely, affected by the attack of influenza, that owing to degeneration of the auricular muscle fibres the contraction wave could not start at the usual place, but did start at the next most susceptible place, namely, the main auriculo-ventricular bundle; the wave proceeded both backwards and forwards at the same time, setting up simultaneous contractions of auricles and ventricles; that, after prolonged rest, the auricular fibres recovered their normal powers to a great extent, if not quite completely. The appearance of the auricular wave at the same time as the radial further implies a delay in the contraction of the auricle, for if the two chambers commenced to contract at the same moment the wave due to the auricle would appear at once in the jugular vein, whereas the wave from the left ventricle has to travel from the aorta to the radial, and should therefore appear later than the auricular wave. Further, there is always a short interval between the

commencement of a contraction of the left ventricle and the escape of blood into the aorta, the pre-sphygmic period, because no blood can escape into the aorta till the pressure within the ventricle exceeds that in the aorta, which at the very least is always considerable. There is then an appreciable interval of time between the commencement of the ventricular contraction and the escape of blood into the aorta. No such interval exists in the case of the contraction of either auricle, because the venous pressure is always low. Therefore, if both auricle and ventricle commenced to contract at the same time the wave in the jugular vein due to the auricle should actually appear a little earlier than the radial pulse, as is actually the case at a_4 in tracing B. This slight delay in the contraction of the auricle further supports the idea that the auricular muscle is the seat of degeneration.

I am much indebted to Dr. Donald Wallace, who gave me the opportunity of taking these tracings, and who assisted me in taking each of them. I am further indebted to Dr. Mackenzie, whose methods I have adopted, and whose arguments and explanations I have made full use of.

NOTE.—Since this paper was written, another article on the same subject has appeared by Dr. Mackenzie, in the October number of the new quarterly *Review of Medicine*, published by Frowde. The views he expresses are practically the same as those given in this paper.

(Read before the New South Wales Branch of the British Medical Association.)

THE SIGNIFICANCE OF THE PATHOLOGICAL VARIATIONS OF REFLEX ACTIONS.

By George E. Rennie, M.D., F.R.C.P. (Lond.),
Physician to the Royal Prince Alfred Hospital, Sydney.

In introducing this subject I do not wish to enter upon any abstruse or disputed point in neuro-muscular physiology or pathology any more than is necessary to enable us to understand and appreciate the significance of the variations which we meet with clinically in the reflex actions. When I speak of the reflex actions I mean those which we commonly recognise in the human subject, and which are of most service in enabling us to diagnose pathological conditions of the nervous system.

As you are all aware, for the development of a reflex action it is necessary to have an intact reflex arc, consisting of (1) an afferent

sensory nerve with a peripheral termination intact and excitable; (2) a nerve cell or group of nerve cells in the central nervous system; and (3) an intact efferent motor nerve, whose end plates in the muscle, and the muscle supplied by that nerve, are in a healthy condition. Given this intact arc, then a stimulus of sufficient intensity applied to the afferent sensory nerve will be followed by the occurrence of a muscular movement. Conversely we may infer from the occurrence of such a reflex action the intactness of the reflex arc concerned. But in the higher animals and in man a further factor comes into play, and we find that, even with an intact reflex arc, a reflex action may not take place, owing to what we call "inhibition" by the higher cerebral centres. There is no doubt that this cerebral inhibition¹ is being continually exercised in healthy persons, and the necessity for this is obvious.

In the course of our clinical work in investigating the condition of the nervous system we recognise three kinds of reflex actions:—

1. The superficial or cutaneous reflexes. These are true reflex actions, and while theoretically we may obtain them in various parts of the body, practically we confine our attention to three or four well-defined reflexes, viz., the epigastric, hypogastric, cremasteric and accessory cremasteric, and the plantar. In normal healthy conditions if we stroke the skin of the abdomen in the epigastric region on either side of the middle line we get a contraction of the rectus muscle on that side, and the umbilicus is drawn upwards and towards the side. When we stroke the skin in the hypogastric region we get a corresponding movement of the umbilicus downwards and towards the side stimulated. When we stroke the skin on the inner side of the upper part of the thigh we get a contraction of the cremaster muscle on that side with a drawing up of the testicle. If the reflex excitability be increased we get in addition a contraction of the abdominal muscles on the same side. This I speak of as the accessory cremasteric reflex. When we stimulate the sole of the foot we get a response manifested by flexion of the toes, especially the big toe, and inversion of the foot. This is spoken of nowadays as the "flexor response." In some conditions the response to the stimulus extends further and we get a contraction of the tensor vaginae femoris muscle at the upper part of the thigh. As this plantar reflex is of much importance, it is necessary to guard against certain fallacies in

eliciting it. First of all, if the sole of the foot be cold and moist with perspiration no response will be obtained; hence it is necessary to dry and warm the foot before pronouncing the plantar reflex to be absent. Then it is necessary to avoid mistaking the withdrawing of the foot from the point of stimulation for the plantar reflex. It is better to flex and rotate the thigh outwards, so that the foot lies on its outer side on the bed. The patient must then be instructed to keep the foot as still as possible. It is further better to stroke the inner side of the sole with a pencil or a pin, and note especially the movement of the big toe and the inversion of the foot.

Now thus far we are on fairly safe ground, for we can understand the mechanism of these reflex actions, but when we come to speak of the next class of "reflex actions" we get into some difficulties.

2. Deep reflexes or tendon jerks. This term has been applied to the well-known phenomena of the knee-jerk, ankle-jerk, elbow-jerk, etc. You are all familiar with the knee-jerk, and I take this as a type of this class of reflex. You know, too, that when this jerk is difficult to elicit, or apparently absent, we use the method of Jendrassik, or "reinforcement," that is, we ask the patient to close his eyes and to lock his hands, one in the other, and pull with all his might. By this means we can often bring out the manifestation of an apparent absent jerk. Now there has been and still is much discussion as to the true nature of these phenomena. But it is pretty certain that the occurrence of the jerk of the leg forwards is not a true reflex action, due to the sensory stimulus started in the tendon of the muscle struck passing up to the spinal cord and being then reflected down the motor nerve of the rectus femoris muscle, and so causing a contraction of that muscle and a jerk of the leg forwards. The view that this is a true reflex action was, however, long held, until it was shown that the time occupied is shorter than that usually occupied in reflex actions, and that there are no sensory nerve endings in tendons.

If, however, the sensory or motor nerves of the rectus femoris muscle are divided, the knee-jerk is not obtained. It has been proved experimentally that when either the sensory or motor nerve to a muscle is divided the muscle relaxes and becomes loose and flabby; in other words, it loses muscle tone, and we are therefore disposed to conclude that muscle tone is essential for the production of

the knee-jerk and allied phenomena, and that the muscle tone depends upon an intact reflex arc. But the matter is not so simple, since muscle tone depends upon some other influence, and this appears to be an influence exerted from the cerebellum; for if the lower reflex arc be intact, but the cerebellar influence be cut off from it, then muscle tone is lost, and the tendon-jerk fails. This influence of the cerebellum in maintaining muscle tone appears to be normally kept in check or inhibited by the action of the higher centres in the cerebral hemispheres, and if this inhibition be removed, then the cerebellar influence is exerted unchecked, and a condition of exalted muscle tone is produced, that is, the muscles become rigid. This has been shown experimentally by Sherrington. Now if the only condition necessary for the production of the tendon-jerk be a certain degree of muscle tone, then, if in a case in which the knee-jerk is lost muscle tone can be restored, the knee-jerk should return. This is what has been noted in certain cases of tabes dorsalis (in which, as you know, the knee-jerks are lost), when, as a result of cerebral hæmorrhage or thrombosis, hemiplegia has developed with rigidity of muscle on the paralysed side, the knee-jerk has been obtained on that side. This was observed long ago by Hughlings Jackson. But this return of the knee-jerk has not always been noted in such cases, and, not to dwell further on a discussion as to the exact conditions which are necessary for the production of the tendon jerks, it is sufficient to remark that a certain degree of muscle tone does appear to be necessary in most cases.

The actual production of the tendon-jerks appears to be a purely local stimulation of the motor nerve endings in the muscle fibres by a sudden increase in the tension of the muscle when it is put on the stretch and the tendon is struck. When the muscle tone is increased then the excitability of the motor nerve endings is more intense, and the result is an exaggeration of the jerk, and a repetition of the action produces a condition called "clonus."

3. The third class of reflexes comprises the organic reflexes, viz., micturition, defæcation, and the sexual act. These are really mixed conditions. They are true reflex actions, but are especially modified by voluntary effort. If the reflex arc is impaired, then the function is deranged. The 2, 3, 4, 5 sacral nerves and their corresponding nerve cells in the spinal cord preside over these actions.

Pathological Variations.—1. The Superficial Reflexes.—The abdominal reflexes may be absent on either or both sides simultaneously. In certain cerebral lesions they may be absent on the contra-lateral side. In the absence of any brain disease the absence of these reflexes may indicate a break in the afferent or efferent path, i.e., the 7th to the 12th dorsal nerve roots, or a lesion in the spinal cord at the corresponding level. In the presence of signs pointing to a localised lesion in the spinal cord the condition of these reflexes may be of some service in enabling us to localise the lesion. For example, in a case of fracture, dislocation, or gunshot wound of the spine, a study of these reflexes will assist in localising the site of injury. But apart from lesions of the spinal cord, a study of these conditions may be of service in the diagnosis of some abdominal disease. In acute diseases of the gall-bladder, the right epigastric reflex is absent; in appendicitis the right hypochondriac reflex is generally absent; in general peritonitis the reflexes are generally absent on both sides; in typhoid fever, according to some authorities, these reflexes are absent during the second and third weeks of the fever; but in my experience—and I have been noting carefully the condition of these reflexes in cases of typhoid fever for some time past—they vary very much from time to time; sometimes they are more active on one side than on the other, but certainly during the height of the fever they are generally sluggish, if not entirely absent, and I think this a point worth observing in any doubtful case. Over-activity of these reflexes, on the contrary, points to a diminution of the cerebral inhibition, or a heightened excitability of the spinal cord.

But the most important of the superficial reflexes, from the point of view of diagnosis, is the plantar reflex. I have described to you the normal "flexor" response with inversion of the sole of the foot. In lesions of the pyramidal tracts this response is altered, and we get an extension of the big toe with eversion of the foot. This is spoken of as the "extensor response." It is also called the "Babinski reflex," after the French neurologist who first described it. He pointed out that this variation in the reflex always occurred when there was a lesion of some kind in some part of the pyramidal tracts, and that it never occurred in cases of simple functional disease of the nervous system. In spite of much adverse criticism and investigation, I

believe that Babinski's conclusions still hold good. But the occurrence of this phenomenon does not necessarily imply the existence of disease of the pyramidal tracts themselves: the one condition which appears to be essential is the existence of *pressure* on the nerve fibres in these tracts at some part of their course from the brain to the spinal cord. If that pressure be removed, then the plantar reflex returns to the normal flexor response. This was well illustrated in a case of hydatid cyst of the brain which came under my care some years ago, and was successfully operated on by Dr. Crago. In this case there was a large cyst on the left side of the brain anterior to the fissure of Rolando. Before the operation there was a well-marked Babinski reflex on both sides. After the preliminary aspiration of the cyst the plantar reflex altered its character and became a flexor response on both sides. A few days later, when the cyst refilled, the extensor response returned again, to disappear after the removal of the cyst. Now this is an important point in cases of head injuries. In a case of head injury where the diagnosis may be in doubt, the existence of a well-marked Babinski reflex, especially if unilateral, would point to compression of the brain either by depressed fracture or by hæmorrhage, and would be of assistance in suggesting the treatment to be adopted. The same holds good, of course, in the diagnosis of various conditions of unconsciousness, where there is no evidence or sign of head injury. Especially is it of importance, I believe, in the diagnosis of uræmia from cerebral hæmorrhage or thrombosis; the presence of a well-defined Babinski reflex most certainly points to organic brain disease. The study of this reflex is also of great importance in the case of a patient who shows signs of so-called "hysteria." You know that patients, especially young females who are suffering from organic nerve disease, not infrequently present symptoms of superadded functional disease, and it is sometimes very difficult to be sure of a diagnosis. Now, I believe it is pretty certain that if such a patient has a well-marked extensor response of the plantar reflex we may be quite sure that there is something more than merely functional nerve disease present. The converse is, however, not true; that is, a patient who may have organic nerve disease may not show a Babinski reflex.

This sign is also of importance in cases of spinal disease. For example, a patient may

complain of persistent pain in the back, a not uncommon complaint. This, of course, may be nothing more than lumbago or a fibrositis; but it may also be due to some disease of the vertebræ, such as spinal caries, or malignant disease, or hydatid disease. In the presence of a well-marked double Babinski reflex we may be quite sure that the patient is suffering from something more than a muscular rheumatism. The same condition of this reflex will, of course, be also met with in the case of fracture dislocation of the spine, if the spinal cord is compressed and not actually divided. If the plantar reflex is absent altogether, or only indefinite, this fact, along with other signs to be mentioned later, will indicate that the spinal cord is completely divided.

2. Deep Reflexes.—In discussing the pathological variations in the deep reflexes, I take the knee-jerk as being the most important, and a good type of this class. The knee-jerks may be absent—

1. As a normal condition in some individuals; this is said to be the case sometimes, but it is exceedingly probable that some pathological condition has been overlooked. In any case it is so exceedingly rare that for all practical purposes it may be ignored;

2. Owing to some defect in the excitability of the muscle fibres, such as occurs in the various forms of primary muscular atrophy. In these cases the jerks are lost gradually.

3. Owing to a break in the sensory nerve, or posterior nerve roots, such as occurs in peripheral neuritis and in tabes dorsalis.

4. Owing to a break in the motor nerve or anterior nerve roots, such as occurs in peripheral neuritis, and peripheral nerve degenerations.

5. Owing to a break in the reflex arc in the spinal cord at the level of the third and fourth lumbar nerve roots, such as occurs in acute infantile paralysis. A myelitis or a tumour may also destroy the nerve cells at this level.

6. Owing to the complete separation of the lower part of the cord from the cerebrum and cerebellum by a complete transverse lesion of the cord by accident or disease; or its equivalent, namely, intense pressure on the cord and secondary degeneration.

7. Owing to some toxic condition, which may affect either the peripheral nerves or the nerve roots, or possibly the nerve cells in the spinal cord. Thus, the knee-jerks are lost in diphtheria; and it has recently been noted that they are so frequently absent in cases of

acute pneumonia, especially in children, that this has been urged as a point in the diagnosis of this disease. They are also sluggish, if not entirely absent, in typhoid fever, at the height of the disease.

8. A unilateral loss of the knee-jerk also occurs occasionally in tabes dorsalis and cerebral tumour.

I have enumerated these various conditions which determine the abolition of the knee-jerk, but the same hold good with regard to the other deep reflexes, only, of course, other nerves and nerve roots and other levels in the spinal cord are involved. And conversely, if one finds the knee-jerks absent, we will be able to trace the abnormality to one or other of these pathological conditions.

The opposite condition of these reflexes, namely, one of exaggeration, may be due to the following pathological states:—

1. There is a false exaggeration, which we find in cases of functional nerve disease, such as neurasthenia and hysteria. In patients who are suffering from these morbid conditions not infrequently a slight tap on the tendon excites a jerk, not only of the leg, but of the whole body. Such a response is most suggestive of functional over-excitability of the central nervous system; or to put it more accurately, to a hyper-excitability of the nerve cells of the spinal cord, owing to the temporary loss of the cerebral inhibition.

2. True exaggeration of the jerks is associated with a morbid condition of the pyramidal tracts, whether that be merely one of interference of function by compression, or by organic changes in the tracts themselves, such as sclerosis, either primary or due to secondary degeneration. This exaggeration of the jerks is also accompanied, in most instances, though not absolutely in all, by a condition of increased muscle tone, and rigidity. This is unilateral in cases of hemiplegia, though not uncommonly even in cases of this nature the deep reflexes are exaggerated also on the non-paralysed side. Then we find the same condition of these reflexes in such diseases as disseminated sclerosis, progressive muscular atrophy, amyotrophic lateral sclerosis, also in chronic myelitis and compression of the spinal cord by tumours of the spinal column or of the spinal cord itself. We find the same condition where we have the pressure on the pyramidal tract from within the cord, as in syringomyelia. A unilateral exaggeration of the knee-jerk may also occur in cases of

cerebral tumour, and a bilateral exaggeration in cases of cerebellar tumour.

True exaggeration of these tendon reflexes then means a cutting off of cerebral inhibition and an overaction of the cerebellum; but a complete cutting off of all influences from the cerebrum and cerebellum causes a complete loss of all the deep reflexes.

When the exaggeration is very marked we not infrequently get the development of a clonus. Thus we may have a patellar clonus or an ankle clonus. The development of a true clonus invariably means actual organic disease, but, mark you, not necessarily incurable organic disease. Here I might mention that in the course of convalescence from prolonged fever, such as enteric fever, and in cases of epilepsy where there has been a succession of fits at short intervals, and where it is probable that the cerebral cortex is for the time being in a state of functional exhaustion, it is not uncommon to get an exaggeration of the knee-jerks and ankle clonus. It is important to remember this fact, otherwise we might think that some organic degenerative disease of the nervous system is present.

In the presence then of true exaggeration of the deep reflexes we should think of and look for a cause of compression of the pyramidal tracts at some part of their course from the cerebral hemispheres to their termination in the conus medullaris; or of some lesion in the brain, either functional or organic, which is cutting off cerebral control.

3. Organic reflexes.—A full study of the pathological variations in these reflexes would take up a considerable time, and so I must very briefly indicate some points about them which may assist us in diagnosis. As I have already said, these are partly true reflexes and partly voluntary acts. A derangement of these functions may therefore be due either to a defect in the reflex arc, or to a defect in the path of the voluntary impulses. In a case of complete transverse lesion of the spinal cord, where, therefore, all volitional control and all knowledge of the condition of the organs is lost, if the lumbar portion of the spinal cord be intact and the sensory and motor nerves of the arc be intact, the functions will be performed in a purely reflex manner. The urine will be discharged at intervals, when the bladder fills, and the rectum will be emptied in a similar manner when the stimulation of the rectal mucous membrane has reached a certain stage. If, however, in addition to a complete trans-

verse lesion of the spinal cord there is descending degeneration down to the lumbar enlargement, so that the reflex arcs in the cord are broken, then there is a complete loss of all control, and the urine dribbles away from the urethra almost as fast as it enters the bladder. The fæces will also escape from the rectum quite uncontrolled.

If the volitional control be intact, and the reflex arc be broken by a lesion either in the sensory or motor nerve or in the nerve centres in the cord, then the resulting condition will be one of loss of control either in the way of incontinence, or a defect in expulsive power with consequent retention. Volition can only be satisfactorily exerted upon an intact reflex arc, either in the direction of inhibition or intensification of the reflex action. Attention to the condition of these reflexes will be of service in the localisation of an injury or disease in the lower part of the spinal cord itself or in the cauda equina.

In conclusion, I would say that throughout this paper I have endeavoured to consider only matters of practical usefulness in our daily work, and to emphasise points which will assist us in the diagnosis of cases we meet with almost every day. I have avoided matters of refined diagnosis which are of much academical interest and importance, but which are of little use to the general practitioner, and if I have at all succeeded in putting forward a clearer view of the value of a study of reflex actions my work will not have been in vain.

(Read before the Western Medical Association at Bathurst, November, 1907.)

PROTECTION OF INDIA FROM INVASION BY BUBONIC PLAGUE.

By J. Ashburton Thompson, M.D., Sydney.

SELECTION of this topic for discussion by a stranger to India requires justification. I point out, therefore, first, that Australian conditions happened to be so favourable to the epidemiological investigation of plague that data of two classes were there acquired with comparative ease, viz., (a) fundamental data which concerned the disease itself and which, consequently, held good in all countries, under all circumstances, and (b) data which concerned practical administration, which are liable to modification in different countries by local habits. And then, secondly, I would say that I have no intention of trespassing on the province of the adminis-

trator, at least in the details of his work. I propose to speak rather of the statesman, and to point out that which I conceive to be the sole and irrefragable principle which he must impress on administrative staffs if he would achieve any permanent reduction in the susceptibility to invasion by plague, which is so marked a feature of the conditions of life in India.

The fundamental data acquired at Sydney were the following:—(1) The epidemic spread of plague occurs independently of communication of the infection from the sick; consequently, the infection of plague spreads by means which are external to man, and which are independent of his agency as subject of the disease. The data on which this conclusion is founded were first published in November, 1900.

(2) The plague-rat is harmless to man; it is, nevertheless, the essential cause of epidemics; consequently, some intermediate agent is necessary to convey the infection in efficient form from rat to man. The evidence for this conclusion was first published in July, 1903.

(3) The intermediate agent between rat and man (and between rat and rat) can be no other than the flea foreshadowed by Simond, and further, actually is the flea. This conclusion also was published in July, 1903, together with the exact observations made in the field from which it was deduced.

The administrative data then acquired were many. They were all referable to the fundamental data; and when it appeared, as it sometimes did, that the conclusions of this class were not in accordance with experience in other parts of the world, it was still found that the differences were apparent and not real. For the sake of example the following instances may be cited. One of them was that transfer of the sick to hospital is a very important curative measure, but is quite without importance as a preventive measure. Another was that there is no such thing as infection of localities or places, although the disease is acquired by resort to certain localities; the explanation is that the local rats are infected, not the places themselves. A third was that clothing never becomes infected with plague, and is never a cause of spread; and it was easily seen that the contrary experience commonly recorded in India was not inconsistent with that conclusion, but was explained by the fundamental datum, that the infection is com-

municated by fleas, which in India very much more commonly infest the people and their houses than in Australia, where such infestation is, for the most part, absent. Observations of the class now referred to may or may not hold good in all respects in changed social conditions; but there was another among them which has not yet been mentioned, and which is certainly of universal applicability. This was that the infection of man was most usually contingent on his being within buildings together with plague-rats; and on considering the fundamental data, it became evident that a certain proximity between man and the minute agent of his infection—the flea—must be necessary. Hence it appeared plainly that the exclusion of rats from occupied buildings must be an important item among steps for the prevention of plague, for from the rat alone does the flea derive its power. But more than that, the longer this point was contemplated the clearer it became that the rendering of occupied buildings rat-proof was absolutely the most important item in plague prevention, and even the only one to which the epithet "preventive" could be justly applied. The reasons will be referred to presently; here I would merely note that I advocated this view also first in 1900, and then predicted that its simplicity, and perhaps also its apparent indirectness, would militate against its acceptance by the laity who controlled the purse and consequently the means of carrying it out. And it is still the case that attention is concentrated on other measures which, in reality, are merely remedial, or merely palliative, and which are consequently interminable. This, then, is the point to which I wish to draw special attention; but I must add that I take it to include and to cover destruction of the harbourage which rats find outside, and in the immediate neighbourhood of buildings. The difficulty of saving the people in a place from attack is proportioned to any difficulty there may be in preventing the access of rats to the buildings occupied by them; but the difficulty of clearing plague away from the place itself is proportioned to any difficulty there may be in removing the harbourage which rats find in the mouths of sewers, in heaps of lumber and rubbish, in loose earth and rubble fillings, and in dilapidated sheds or the like structures.

It should be noted that the administrator who is faced with an outbreak of plague is perfectly right in relying on immunisation of

the people—a possibility laid open to him by the genius of Mr. Haffkine, here present—on evacuation, and on the destruction of rats. These are his only, and fortunately his very effective means of staying it. But the statesman should be caused to understand that the control of existing epidemics is not a subject to engage his supreme abilities, and that his preoccupation should be how best to diminish the susceptibility to invasion of his country as a whole. The methods just mentioned (I must repeat it) are in fact remedial, not preventive, and consequently they are, as I have already remarked, interminable. If a population be immunised this year, it must, if it be re-invaded, be again immunised in a twelvemonth, or a little later; evacuation may have to be repeated even during the same season; and to the killing of rats there is literally no end at all. But every building which is rendered inaccessible to rats may be regarded as a fortress impregnable to that enemy for ever. This, then, indicates the only road the statesman can fitly take; a road, namely, on which every step must be directly towards the goal, and on which there cannot be any back-sliding.

The arrest of present outbreaks is a quite different matter from diminution of the liability of the country to suffer them. Removal of the conditions which constitute susceptibility can alone be justly spoken of as preventive action. And it is, I think, of little use to place scientific truths before the laity unless the expert points out their practical bearing and application at the same time. In order to judge in how far true that is, it is only necessary to ponder the Gazette Extraordinary which was published by the Government of India during August of this year. That gazette draws attention to the essential part played by the rat, to the essential agency of the flea, and to the insignificance of deposited infection; but it also expresses the opinion that this knowledge, acquired by it from the remarkably brilliant reports of the Plague Research Committee, will probably not render the task of prevention much easier than it was before. The Gazette even mentions the desirability of excluding rats from dwellings, but only to dismiss this method with the remark that it is impossible to expect much improvement in the construction of buildings in the near future. The all-important distinction mentioned above between remedial and preventive measures is not perceived.

This pronouncement, then, appears to be rather less far-seeing than might reasonably have been expected. For there are many other considerations which must be entertained besides the crude facts which are recited in the Gazette. It should be noticed that plague seems to have taken its place among the endemic diseases; and if the uncertain teachings of history seem to offer some prospect of its ultimate extinction by natural process, it should be borne in mind that present circumstances are vastly different from those which formerly obtained, and especially in relation to traffic. To-day plague is a disease to be fought persistently in India, as, I suppose, typhoid fever and cholera are there fought. No speedy exemption is, in my opinion, to be expected.

It must be frankly said that the method of exclusion is practically impossible in the smaller villages, in the larger villages, and in the lesser towns; but this admission is very far indeed from covering the whole case. In the first place, it is precisely in those smaller and more or less circumscribed collections of huts and houses that the palliative or remedial measures are easily successful, and, provided the infection be not re-introduced, permanently successful. In the second place, whence do Indian villages derive their infection? Is it not from the great cities on the seaboard, and from the larger inland cities which have become secondary distributing centres? And is it indeed quite impossible to apply the method of exclusion in them?

I do not doubt that when a broad and comprehensive survey of all the data has been taken, it will be perceived that the exclusion of rats from occupied buildings in cities is the only measure which can permanently diminish the susceptibility of India to plague; and that, as soon as this principle of action has been grasped, resolutions taken by Government will be conceived in the spirit which animated that courtier who, when he was desired to undertake a business which the King himself thought it hardly possible to carry through, replied: "Sire, if it be difficult, it is already done; if it be impossible, it shall be done."

(Read at a special meeting of the Royal Society of Medicine (Epidemiological Section), 2nd December, 1907.)

To be let, from June 1st next, Melrose, corner Oxford and Queen streets, Woollahra, a commodious Residence; best position in Eastern Suburbs, opposite Centennial Park Gates, Sydney. At present in occupation of Dr. M. O'Gorman Hughes. Apply, Julius Caro, Pomeroy, Macleay-street, Potts Point. E

ON THE PRESENT METHODS OF COMBATING THE PLAGUE.*

By W. M. Haffkine, C.I.E.

I.

I SHALL begin my review by briefly enumerating the measures suggested for stamping out the plague or preventing its importation. These measures deal either with man, with inanimate objects, or with the lower animals. The first category of measures comprises :— (1) Discovery and notification of persons attacked with the disease ; (2) isolation of the attacked ; (3) certain precautions with regard to the disposal of the dead ; (4) segregation of those who have come in contact with the sick or dead ; (5) institution of cordons round infected areas ; (6) a less drastic and less thorough plan than the last mentioned, viz., placing in quarantine arrivals from infected places, detaining the sick and suspected, and letting the rest free after a time of observation ; (7) a still less thorough measure is merely to examine travellers, isolate the sick and suspected, and let the others free under a system of surveillance.

The following may, I think, be said in regard to this group of measures :—The part played by man in the causation of plague seems, on the whole, subordinate to that of other agents. Thus, when the plague first broke out in Bombay, in the summer of 1896, it remained for a considerable time confined to a quarter called Mandvi. The mass of people there are day labourers, working outside their quarter. Though they spent the day in close communion with many other people, cases continued to occur among the Mandvi labourers alone and in their families, and only subsequently and gradually appeared in other quarters. Since that year, Bombay has had eleven consecutive outbreaks. Every year the epidemic lasts for some months and becomes relatively quiescent for the rest of the time, but the recrudescence begins at Mandvi, and the same events are more or less uniformly repeated.

Subsequent to the appearance of plague in Bombay, a township called Kirkee, near Poona, became infected, and the disease broke out among the native followers of the Royal Artillery. The men and their families lived on a spot somewhat away from the rest of the people, but spent the day at work in

the batteries. Throughout the epidemic the batteries remained free from disease, while the followers suffered heavily ; and they suffered practically in the same proportion as their womenfolk and children, who did not leave their homes. Similar facts were observed on the Colaba peninsula in Bombay, among men who, in the daytime, were at work in the Army and Navy Co-operative Stores and at the Gun Carriage Factory, and spent the night with their families. The other people in the Army and Navy Stores and at the Carriage Factory remained free, but the Colaba men suffered practically equally with their families.

Further, on many occasions it has been observed that plague first started in a town by attacking people who had not been away, and among whom no history of contact with people from an infected place could be discovered. Lastly, in every country invaded by the disease, there are districts, towns, or villages in which, though the people are in constant communication with infected places, and cases of plague are constantly imported into them, the disease gets no footing and the locality remains exempt from invasion.

The proposition illustrated by these facts, viz., that man does not play a predominant part in the conveyance of plague, is supported also by other observations. In 1897, a plague hospital was established in the vast premises of the old Government House at Parel, in Bombay, and a number of patients soon gathered there. In order to minimise the objections to hospital treatment, families were allowed, if they so wished, to accompany their patients, stay at the hospital, and attend on them. The officers in charge soon noticed that when a family took advantage of this permission and came to dwell in the midst of numerous plague patients, it was safe from disease ; but when it remained in its own home, from which the only case of plague had been removed, other cases often followed. In the same way, very rarely has it been seen that any of the permanent attendants in plague hospitals have taken the disease. Pneumonic cases alone have proved to be dangerous in this respect.

The observations above quoted warrant, I believe, the following propositions, now more or less generally recognised, viz., that (1) plague is what has been termed a disease of locality ; (2) that it is contracted principally at night ; and (3) that the part which man plays as direct agent in its propagation, in a

* We are indebted to Dr. Ashburton Thompson for a copy of this paper, which was read before the Epidemiological Section of the Royal Society of Medicine, London, December 2, 1907.

general sense, is a more or less subordinate one. This being so, the measures taken with regard to man, even when carried to perfection, can influence the propagation of plague only to the same proportionately limited extent. In the vast majority of cases events have conformed with this conclusion, in that precautions taken against the importation or the spread of plague by man have failed. It must, however, be stated that these precautions can rarely, if ever, be carried to perfection. Their application is fraught with great difficulties, and is often impracticable. This is due to the impossibility of enlisting the self-sacrificing co-operation of private individuals, to the first cases being rarely recognised, to the reluctance of those falling ill to deliver themselves into the hands of strangers and officials, to the measures of prevention causing damage to trade and to numerous private interests, and to the consequent evasion of prescribed rules. The time, therefore, arrives when the measures directed against man are relaxed or dropped, and efforts are chiefly applied to inanimate objects.

II.

This part of the programme seems lighter of accomplishment. The list of measures, within an area infected, comprises, in this case, destruction or disinfection of houses, furniture, clothing, bedding, carriages, goods, warehouses, grain and other stores, garbage, drains and streets. Outside the infected area the measures consist in the refusal to admit carts, trains and ships with goods from infected places; or in the refusal to admit only certain goods; or in mere inspection of trains, carts and ships, and some procedure by which these, and the goods they convey, as well as the belongings of travellers, are sought to be rendered harmless. All these measures are intended for the avoidance or destruction of plague germs which may possibly exist in the objects concerned.

Plague bacilli have, however, been very carefully looked for, but have not been so far discovered in the earth, on the walls or floors of houses, or on any inanimate object, unless they were quite obviously and recently soiled by the products of a plague patient. I am not, moreover, aware of an instance in which the propagation of this disease to a distance by means of goods of inanimate nature has been conclusively demonstrated, though linen, clothing, handkerchiefs, and other personal belongings of a sufferer from pneu-

monic plague, if soiled with his sputum or nasal discharge, must be dangerous for a certain period of time. Further, the microbe of plague is not a resistant organism. From the first it was seen that under ordinary circumstances it was easily killed by disinfectants. Exceptional conditions are required for that microbe to resist and preserve its vitality. Under these circumstances the following conclusion might seem justifiable: If inanimate objects are important carriers of plague, disinfection should generally be an effective check to its spread, and on this presumption the above measures were devised.

According to numerous observations, however, made by health authorities, a house, its furniture, all the belongings of the inmates, and the inmates themselves may be washed and disinfected repeatedly, and yet cases of plague may occur subsequent to each disinfection, if people are allowed to stay in that house. Though general statements to this effect have been made by earnest observers, I am not aware of a precise and convincing demonstration by experiment of a case in which disinfection arrested the development of an epidemic of plague.

The above theoretical considerations may be qualified by the following remarks:—The expense and the difficulties of destroying or thoroughly disinfecting houses, goods, and other property, over a vast area, are very great, and the agency for properly carrying out such measures is not available, or is not forthcoming.

The enormous bulk of merchandise conveyed nowadays by rail and ship admits of no process which would answer to elementary requirements of disinfection; and the opposition and hostility of vast numbers of people, whose interests are hurt by these measures, can only be estimated when the task is actually undertaken. There is, therefore, little wonder if disinfection fails, as has been seen on so many occasions, to interfere with the progress of the plague.

III.

I come to the measures relating to the lower animals. These are:—(1) destruction or keeping away of rats by poisoning, trapping, tar and sulphuric acid mixture, or through the agency of the domestic cat; (2) improvements in towns and villages, with a view of reducing the rat population, viz., structural alterations of dwellings, warehouses and grain stores, demolition of insanitary buildings, introduction or improvement of conser-

vancy arrangements, prompt disposal of garbage, periodical inspection of stores, paving and draining of streets, and some other measures; (3) destruction and dispersion of fleas by petroleum or other products; (4) fumigation of houses as a temporary protection against rats and fleas; (5) obligation on ships from infected regions to anchor away from the shore; or (6) provision of mechanical arrangements for preventing the landing of rats along mooring cables and gangways; and (7) fumigation of ships arriving with plague patients or plague rats on board.

The measures have, therefore, for their object, and, I believe, rightly so, the rat and the flea, described by Rothschild under the name of *Pulex cheopis*; but spontaneous epidemics of plague break out also among squirrels, tarbagans, guinea-pigs, monkeys, kangaroos in Australia, and some other animals, which contribute to keeping the epidemic alive.

Measures for the destruction of rats were applied in India at the beginning of the epidemic, viz., in 1896, by Professor W. J. Simpson, then Health Officer of Calcutta, and have since been carried on there in many places. They are now enforced wherever plague makes its appearance, and a new impulse has been given to them by the researches of the recent Plague Commission in Bombay. But nowhere, possibly, has the effect of these measures been more carefully gone into than in Sydney, under the direction of Dr. Ashburton Thompson. The campaign against rats is the most rational and the best founded of all the measures suggested for stamping out the plague, for in animals alone have plague microbes been found outside the human body, and the efforts in this direction must command universal approval. In estimating, however, the extent to which this is a promising measure, the following must be taken into consideration. Various factors, such as increase of the human population, destruction or planting of forests, occupation of waste lands, building of canals, introduction of new animals and plants, and a variety of other circumstances bring about, in the course of time, important changes in the flora and fauna around us. I might quote, as relatively modern instances, the disappearance of wolves from Great Britain, or the practical extinction of the bison, or of the black rat, from these islands and the continent of Europe, and a few others. These changes have taken place gradually, and in such long

periods of time, that the exact causes which have brought them about are unknown.

Up to quite recently it would have been impossible to name a single instance of a result of this kind having been effected in a short time by steps of an administrative character, or even by the resolve of a whole population. From time immemorial man has had to put up with the presence in his proximity of animals and plants interfering with and devastating his crops—locusts, field mice, spermophiles, campagnoles, phylloxera, mildew, rabbits in Australia, and so on. The power of adaptation and reproduction with which nature has endowed many of these animals and plants generally triumphs over the deliberate efforts of man when the surrounding circumstances are favourable to their multiplication. Still the problem is not wholly impossible.

The recent successful instances, to which I have alluded, are the campaigns against mosquitoes in Ismailia, in Klang and Port Swettenham, in the Panama Canal zone, and a certain number of other places at which it has been found possible to alter in a short time the surrounding conditions so as to render the propagation of these insects impossible. These examples are a grand and splendid lesson to the world, but a lesson which, it must be acknowledged, is, in many cases, difficult, and in others, impossible of imitation.

The observations made by the Chief Medical Officer of New South Wales are of interest in this connection. I have in view his carefully organised campaign against rats in Sydney, with the object of protecting from plague a white population of a high standard of intelligence and education. During that campaign Dr. Ashburton Thompson found that the gross returns of rats and mice caught and destroyed in Sydney, week by week, were nearly uniform; that there was thus no evidence that the slaughter produced such an impression on the general horde as would have rendered collection progressively more difficult; and that there was no ground for inferring that any material impression had been made on the total rat population. The opinion he came to was that extermination of rats in any large area by poisoning and trapping was practically impossible; and that the spreading among rats of an artificial epizootic by means of a virus like that of Dr. Danyasz was not a practically useful method. But one may say India has now had, in the plague

bacillus, 11 year's experience of a most devastating virus for these animals, and as yet there is no sign that this involuntary experiment has rid the country of their presence.

The observations made in Japan, where determined efforts have been made to destroy rats, are as little encouraging. The facts published in June of last year were to the effect that in Tokyo alone 4,800,000 rats had been killed, but the slaughter seemed only to have prepared more favourable conditions for the multiplication of the survivors.

Dr. Ashburton Thompson's experience, in regard to facilities given by householders in Sydney for the detection of plague rats, was identical with that gained in India. He found that the people were reluctant to admit to their premises rat-catchers and other strangers bent on that task, and that the information supplied by the inhabitants, as well as that gathered by the professional men specially appointed for the purpose, was so scant as to be barely sufficient to indicate the presence of infection in a locality, but not to gauge its severity. Though, therefore, the measures against rats, either by extermination or by change in the construction of cities and villages, are a most important item in an anti-plague campaign, the question whether any noticeable impression can be made on the epidemic by these measures within the length of one generation, or even in a longer period, is a matter of great uncertainty. Even the destruction of rats on ships alone, if imposed as a general measure, would cause a dislocation of traffic and an outcry formidable to face. The result is that every day plague is imported, though fortunately it does not spread, into one part or other of the maritime countries of the world.

IV.

The above analysis of the facts connected with the problem of stamping out the plague leaves little room for surprise when it is seen that, although in many places reached by the plague, the latter, as I have just mentioned, does not take root and dies out; in others, where it finds a *congenial field for its propagation*, the attempts at eradicating it prove unavailing. Thus often ends in disappointment what may be termed the *first stage* of the struggle against that disease, namely, the efforts of stamping it out or keeping it out. This result becomes apparent to the population, who are the sufferers, long before the medical or sanitary authority makes up its mind to acknowledge defeat; and when they

first become aware of it the people fly in a stampede in all directions. For, although bare figures of the plague death-rate sometimes impress us too much, and at others too little, there can be no doubt as to a plague act ally being a terrifying event. It takes time to get used and, so to say, reconciled to it. European countries must still have some recollection of their own experience of the matter. The people therefore flee and seek shelter in other towns; but their means of livelihood are left behind in the old place: nowhere is employment and sustenance ready for new and sudden arrivals. After a period of suffering and hardships the fugitives return in search of work to the old place, and resign themselves to the inevitable.

I have referred, however, to the fact that when plague first occurs in a given quarter of the city it remains confined to that quarter for a certain time. There is thus no necessity for going far afield. In the Himalayas and the plains of India the villagers, whenever possible, go out a mile or two from their houses and live under trees or in open fields. Often, however, the disease breaks out in the mountains in severe winter, and in the plains during the season of rains. To remain then in the open or in rapidly put-up shelters, with a scanty provision of clothing and bedding, with the difficulties in preparing food, protecting property, caring for and sheltering the small children and the aged, becomes an untold hardship. In towns, on the other hand, unoccupied land is scarce. The people in fair weather go into such open spaces and public squares as are available. A water supply, conservancy arrangements, police administration, fire prevention, patrolling of abandoned houses and property, depôts for boxes and bundles, and a number of other arrangements become necessary. With this, the deprivation of ordinary comforts of a settled home is felt so keenly that only families in whose midst cases of plague have already occurred avail themselves of these facilities. The others remain at their homes and furnish material for the up-keep of the epidemic. The plan of abandoning the affected locality, for shorter or longer periods, may perhaps be termed a *second stage* in a campaign against the plague.

To whatever extent this plan is feasible, to that extent the effect of it is beneficial. It is the limited range of it and the innumerable complications which it brings in its train that finally led the Administration and the people

to resort to what I always viewed as the *ultimate method* of combating the bubonic plague in the areas in which it becomes endemic, viz., that of conferring on the population immunity from the disease by means of an artificial treatment.

V.

I imagine that in this section of the Royal Society of Medicine it would be out of place to enter into the bacteriological aspect of the anti-plague inoculation, to examine the various views from which the subject might be approached and solved, and the advantages and difficulties presented by each. For the purposes of the present deliberations it may, perhaps, be sufficient to enumerate the salient points of the matter, as ascertained in India in the last ten years.

1. That in a native of that country, who is more susceptible to the disease than Africans, Europeans and some other races, the inoculation now in force in India reduces the liability to attack to less than one-third of what it is in a non-inoculated India.

2. That in the one-third of cases which still occur, the recovery rate is at least double that in the non-inoculated attacked, the ultimate result being a reduction of the plague mortality by some 85 per cent. of what it is in non-inoculated Indians.

3. That in an inoculated European an attack of plague, if it subsequently occurs, has, as far as is known to me, always ended in recovery.

4. That the inoculation is applicable to persons already infected and incubating the plague, and prevents the appearance of symptoms, or else mitigates the attack, a fact which disclosed a basis for the bacterio-therapeutic treatment of disease.

5. That in natives of India the degree of immunity conferred by this inoculation, though gradually vanishing, seems to last *during several outbreaks of plague*; and that

6. In Europeans the effect has not yet been seen to disappear in the space of time, since 1897, that this inoculation has been under study.

I shall proceed to matters which concern the epidemiological aspect of the question, viz., the place which experience has indicated should be assigned to this plan of defence in plague-stricken provinces.

His Majesty's letter on the plague, addressed to the Governor-General of India on August 13th last, and Lord Minto's communication to the heads of local governments and

administrations, have brought about a renewal of effort for bringing down the plague mortality. Lord Minto's communication points out that many expensive and harassing operations carried on in the past may be safely abandoned, and expresses the hope that, with the assistance of the people themselves, some distinct advance will now be made towards bringing the ravages of the pestilence under control. Consequently, in most places fresh campaigns have been undertaken and organised in the light of the experience gained during the past decade.

The province which has had most of this unhappy experience is the Bombay Presidency, where the disease appeared first in 1896. The result of this experience may, I think, be gauged from the following official utterances:—On October 7th last the Hon. Mr. Muir Mackenzie, then Acting Governor of that Presidency, in a public speech addressed to the Municipal Corporation of Satara, summarised the mutual position of the two principal measures on which the Bombay Government have learned to rely in the struggle against the plague. "Evacuation," he said, "is no doubt effective *quantum valeat*. But think of its drawbacks. I doubt if it would have been possible at all during the torrential rains of July and early August. If managed, think of the miserable discomfort, the risk of chills and fever; and, at its best, what a dislocation of business, what a disturbance of home, what expense, what discomfort, is entailed by evacuation. Evacuation will not cure the stoppage of business, the closing of schools of which you complain. But if inoculation were general none of you need stir—your business would continue, your schools would be full, everything would be as before. I can fancy that in the old days smallpox may have entailed the same miseries as plague does now—fleeing the town, the runaways carrying infection; deserting the home only to catch the disease on daring to re-enter it. Now, people being vaccinated are hardly disturbed when smallpox breaks out. Let it be the same with plague. Be inoculated at the first sign, and so obviate disturbance of the domestic and educational and business avocations of yourselves and your children."

Sir George Sydenham Clarke took over office as Governor of Bombay a few weeks ago, and on November 12th addressed to the vernacular newspapers a letter of which some telegraphic information has reached this

country. He emphasised the heavy responsibility which rested upon the papers of using their influence with the natives to prevent the spread of the scourge. He acknowledged that if the people were unwilling to destroy the rats which were the vehicles of the disease, their feelings must be respected, and he therefore urged that recourse should be had to universal inoculation, which, he stated, was the easiest and most certain method of prevention.

The experience gained in the Punjab, the other great province of India ravished by the plague, has been stated in a memorandum which the Government of that province addressed to the Government of India on June 30th, 1902, after five years of the application of various anti-plague measures. According to this statement *segregation of patients and contacts*, under the conditions which are essential to the success of that measure, is entirely out of the question, and intercourse between infected and uninfected places is in most cases quite unrestricted; *evacuation* is not a measure which can be of assistance in checking the extension of plague from one locality to another; *disinfection* cannot be relied upon as a practical measure for the check of the epidemic; and there remains only *inoculation* with the plague prophylactic, and its benefits; the Government says, are so generally understood in the Punjab that a large proportion of the population of the infected districts can, without much difficulty, be induced to submit to the operation.

The part of India now exposed more dangerously than all the others is the United Provinces of Agra and Oudh. These provinces have now as head of the Administration the able civilian who, in 1898-1901, accompanied and took part in the investigations of the Indian Plague Commission, and had an opportunity of making himself closely acquainted with the working and the results of the various plans tested for combating the plague. In publishing, in the beginning of September last, his Majesty's and the Governor-General's letters on the plague, Sir John Hewett, the Lieutenant-Governor, issued a detailed plan, approved by the Government of India, of organising a special service to carry on inoculation when plague reappeared. The poor, who cannot afford to lose their earnings during the day or two of rest desirable after inoculation, are to be given assistance up to a sum of one rupee per person. Government servants are to have inocula-

tion leave for the necessary period. Railway companies, and other employers of labour, are requested to give similar facilities to their employees.

The resolution issued by the Government on the subject ends by saying that the Lieutenant-Governor "*earnestly appeals to everyone interested in preventing the manhood of the country from being sapped and its vitality destroyed by the scourge of plague, and particularly to the leaders of native society and non-official Europeans who employ labour on a considerable scale, to aid in the endeavour to induce the people to protect themselves by inoculation.*" Subsequent to this resolution the Government of the United Provinces issued orders offering also facilities for those who wish to vacate their houses, and giving detailed and well thought-out directions for the destruction of rats.

Mr. President and Gentlemen, I have endeavoured to place before you the present position of the various measures suggested and tried so far in combating the plague as an epidemic. I have not entered upon the subject of curative treatment of plague, because this would perhaps be outside the scope of this section, and because the result of that treatment has so far left much, if not everything, to be desired.

FRACTURE OF SKULL—THREE CASES.

By T. Fiaschi, M.D. (Pisa and Florence), Sydney.

1st Case.—An Italian sailor, 18 years old, who, whilst heaving at the capstan, was struck on the head by one of the levers which had violently recoiled, owing to the pawls having lost their hold. On July 4th, 1907, was admitted to the Sydney Hospital unconscious, with a wound over the left parietal area, which was bleeding freely. Had twitching over the right side of face; pupils equal; had lateral nystagmus. The wound was about one inch and a half in length, and no positive evidence of fracture, but owing to the severe condition of the blow I decided to explore.

Under chloroform the wound was enlarged, and a large depressed fracture was found almost at the junction of frontal and parietal bones, close to the craniometric point stephanion superior. I kept incising the skull anteriorly and posteriorly until almost the whole line of the suture was exposed. The depression was only in the centre in the

point above mentioned, and there a true comminuted depressed fracture of the gutter type was present for about one inch and a half; this tapered off on each side in two long fissured fractures, one running anteriorly towards the middle of frontal bone, the other posteriorly towards occiput. I followed the latter with the incision to its end, but not the former, as it appeared to dwindle away into a fine linear fissure. The depressed fragments were on the lower side about a quarter of an inch deep. I applied a half inch trephine crown on the upper fragment, and with an elevator was easily able to lift all the depressed portions. Considerable hæmorrhage oozed up from some of the smaller branches of the middle meningeal artery, but having ascertained that no epidural clot was present I closed the wound. Patient remained unconscious for nearly 48 hours, and when he gradually became conscious was aphasic and had slight paretis of right hand. On July 11th, six days after accident and operation, the aphasia completely disappeared. Since has been doing well, complaining only for a time of diplopia, but this passed, and is now quite well. Dr. MacLeod, who examined his cyst, pronounced them to be well.

2nd Case.—Another Italian seaman, victim of the same capstan accident as the other. The lever struck him on the right parietal region. Was unconscious for a while, but soon recovered, and was able to walk into the casualty room. No wound; no vomiting; eyes normal; on examining the skull I found that over the right parietal eminence there was a circular swelling about two inches in diameter, cupped in the centre. If the finger was pressed hard over this circular rim, so as to decompress the swollen scalp, I was able to feel a marked cupping of the skull one inch and a half in diameter and fully half an inch deep. Evidently there was a pond fracture, and though the patient presented no symptoms, in view of possible remote developments, I decided to elevate. I reflected a horse-shoe flap and found a really beautiful cupping of the skull in which the fracture was hardly visible, appearing as very fine lines all round the margin of the cup. I applied a half inch trephine crown anteriorly and superiorly, and passed a strong elevator beneath the deepest part of the cup, but although I used all my force I could not raise the depression. Evidently the mechanics of the arch were against me. To obviate that I made with a chisel a fissure right through

both tables of the antero-posterior diameter of the cup. I then, with the greatest ease, pressing alternately on the two halves of the cup, was able to bring back the parietal eminence to its normal curve. Before closing the wound I carefully searched through the trephine opening with a probe for depressed portions of the inner table or spiculæ, but found none. In this case I did not replace the trephine button. The patient made a good recovery, and has been quite well since, but complained of some headache over the seat of the fracture. Memory good; otherwise is quite well.

3rd Case.—A young man, 21, admitted in the Sydney Hospital on the morning of July 12th last. Patient was at the bottom of a ship's hold and a piece of coal about six inches square fell from the deck on his head. No loss of consciousness; no vomiting; pulse weak; but was expectorating small quantities of blood. On the left side of head in the parietal region a lacero-contused wound was present; skull was not exposed, but on probing some unevenness in the surface of the bones could be felt. Decided to explore and, under chloroform, I enlarged the original wound and found a fissured fracture, 4½ inches long, running from the left parietal eminence to the frontal bone. There it divided in two fissures, one of which ran across the forehead, the other in the orbit. These I did not follow. At the posterior end the fissure opened up in two branches, and at this angle the lower fragment was depressed. A half-inch trephine was applied above, and the depressed fragment was easily elevated. A small amount of epidural blood-clot was present at the site of depression. This was removed. Wound was sutured as usual. Patient made an uninterrupted recovery, and is quite well. Mind clear, memory good, no headache, no insomnia, no irritability.

Remarks.—I am presenting to you these three very common cases of surgical practice, merely to draw your attention to the fact that depressed fractures of the skull are not always very clear from outside examination, and that it is a good thing, whenever you have reason to suspect one, to make an exploratory incision. If you read the text-books of surgery you will find considerable variety in the treatment recommended for fractures of the skull. Some books are inclined to recommend non-intervention, others recommend exploratory incision in all cases of compound fracture of the skull. Text-books are

conservative, and are generally a few years behind the crest wave of surgical progress, as revealed in the current newspaper surgical literature and in the actual work in hospital. Of late the majority of writers on brain and skull surgery are becoming more and more agreed as to the importance of elevating all depressed fractures, and of removing all cause of compression, whether bone or blood-clot, in cases of fracture of the skull. The reason of it is that non-intervention is so often apt to be followed by such remote consequences as persistent headache, giddiness, epilepsy, mental impairment, loss of memory, delusions, insomnia, and irritability. I have been so impressed with these remote results in the past that for a long time I have invariably explored all such cases, and am pleased with the results, and intend to continue with this method of treatment. I think it is hardly necessary in this year of grace to mention that no such exploration should be carried out without the most perfect asepsis.

The only other points of interest worth mentioning in these cases are the occurrence of aphasia in the first case. You remember how, not long ago, we were all startled by Marie's article in the *Semaine Medicale* advancing the iconoclastic view that the third left frontal convolution has no share in the function of speech.¹ If you examine the fracture of this man you will find that it was not far off the left third frontal convolution, and that the transient modern aphasia from which he suffered was no doubt due to some pressure on it from blood effusion. So we can cling on to Broca's old localisation of speech.

The other point of interest is the peculiar very pretty even pond fracture of the second case, which I have tried to mimic for you on the vulcanite ball by dipping it in warm water, pressing over it a watch-glass, and then dipping it in cold water. Am I right in calling a green-stick fracture of the vault of the skull? If you refer to Stimson's classical book on fractures you will find that his definition of green-stick fracture, infraction, bent bone, or curvature without fracture is "a fracture involving only a portion of the thickness of a long bone, and combined with a bending of the bone at the seat of fracture."² I think that we are not far off it in this case. The lines of fracture at the margin were so small and fine that I hardly believe they extended across the two tables. I remember years ago having seen a similar fracture in the forehead of a boy who had been struck by a cricket

ball, causing much headache. I elevated the depression and he has been well ever since. The fact that these cases are almost always met in young people is a further reason to consider them as green-stick fractures.

REFERENCES.—1. *Semaine Medicale*, Paris, Vol. XXVI., pp. 241-247. 2. Stimson's *Fractures and Dislocations*, 4th ed., p. 217.

TUMOUR OF THE BREAST, SHOWING PECULIAR HISTOLOGICAL CHARACTERS.

By Sydney Jamieson, M.B., Ch.M. (Edin.), Hon. Pathologist and Physician to Sydney Hospital.

E.I., 56, married, but no family, was admitted to Sydney Hospital on September 6th last, under the care of Dr. Robert Bowker, complaining of a lump in the left breast.

History.—About two years ago she received a blow on the left breast which caused only very slight pain, but left a small hard lump behind. Until three or four weeks ago it remained small and painless, but at that time it began to increase rapidly in size, became darker in colour, in parts bluish, and she began to experience some pain of a darting character in the nipple of the breast. Occasionally a slight discharge came from the nipple. Her previous health was always good and her habits beyond reproach.

Condition of breast when seen.—Patient, a strong and healthy-looking woman. At the inner side of the left breast there is a large firm purplish mass involving practically the whole of the inner half of the gland except the left upper margin. It is slightly movable on the underlying tissues. The nipple not depressed or retracted. The skin over the mass is to some extent fixed to it. No glandular enlargement is to be felt in the corresponding axilla, but one or two small glands are palpable along the border of the pectoral fold. The growth is not specially tender on manipulation. On September 11th the growth was removed by a very comprehensive excision by Dr. Bowker, and the growth was submitted to me for report.

The microscopic characters of this growth are very peculiar, and illustrate two points the importance of which should not be overlooked, viz:—(a) The difficulty one at times meets with in properly classifying a growth in accordance with the scheme of classification referred to in the text-books; and (b) the importance of examining sections from various parts of a growth before venturing an opinion as to its nature.

I have made sections from three different positions in the growth, and these are indicated on the growth by numbers affixed by pins.

1. The characters of the growth in this position are those seen in some endotheliomata, and especially in those found in connection with the antrum of Highmore. The cells are for the most part arranged in definite alveoli with well marked fibrous walls. In some parts the cells line the spaces and are quite flattened against their sides, but in others the cells are more epithelioid in character, and arranged in a more irregular fashion. The central portions of the alveoli are in many situations filled by a mass of material enclosing polymorphonuclear leucocytes, which has in parts undergone what appears to be a colloid transformation. From a view of this section alone one would, I think, be justified in calling the growth an *endothelioma*.

2. Taken from a part of the growth that appeared to be more dense in structure than elsewhere. Here the histological characters are for the most part quite different from those just described. Over large areas of this section the cells are distinctly of the sarcomatous type, and are of all shapes and sizes, and scattered amongst them are numerous large giant-cells similar to those seen so often in the *myeloid sarcomata*.

3. In the sections taken from this region the sarcomatous character of the tissue is even more marked, and in addition to this there are scattered through the tissue numerous hæmorrhages. The multi-nucleated masses of protoplasm in this part of the growth are particularly well seen. In some parts of the section endotheliomatous areas are seen lying side by side with areas of tissue resembling giant-celled sarcoma, and as the endothelial cells show marked degenerative changes a resemblance to *deciduoma malignum* is seen.

PERFORATED GASTRIC ULCER—OPERATION—RECOVERY.

By F. J. T. Sawkins, M.B., Ch.M., Sydney.

On July 8th a young woman, 21 years of age, was bending over a washtub, after a hearty breakfast of stewed lamb, etc., when she felt something give way internally, and was immediately seized with violent abdominal cramp. Two hours later she was seen by a colleague, when she had a normal pulse and

temperature, and no vomiting, the only symptoms being the intense pain and on-guard condition of the abdominal muscles. She was seen again after an interval of three hours, when her condition was unchanged. She was then induced to go to a private hospital, where on her arrival she was found to be somewhat collapsed; her temperature had gone up to 100° and her pulse to 120.

Her previous history was that she had been treated some years ago for anæmia, that she had suffered at odd times from pain after food, and from indigestion. She had never had hæmatemesis, nor for the past two years any continued vomiting; in fact she gave just the comparatively negative history that so frequently goes with chronic ulcer of the stomach, and which associated with an acute attack such as this girl had, is apt to suggest the correct diagnosis.

I saw her in consultation at 9 p.m. the same day. She had just had a copious stool, had a good colour, and was feeling much better. Her temperature was then 100°, and her pulse 108. There was neither vomiting nor nausea. On examination there was no evident distension, though the lower level of the normal liver dulness was slightly encroached upon by a "cracked-pot" note. A similar note was evoked over the usual stomach area; elsewhere the abdomen was tympanitic. There was a definite on-guard condition of the recti muscles more pronounced on the left side. A very tender spot on palpation was found below the left ninth rib. No pain complained of over lower part of abdomen. On placing the right hand behind the lower left ribs and suddenly pressing forwards towards the left hand over the liver, a definite dull pain was felt by the patient. No evidence was found of free fluid in abdomen proper. In spite of the marked improvement in her condition and the fact that her bowels had acted, her immediate and past history induced me to make a diagnosis of perforated gastric ulcer, and to operate at once.

As soon as possible, therefore, an incision was made in the upper middle line, and when the peritoneum was opened some milky fluid escaped. A perforation was found under partial cover of some flakes of lymph at the cardiac end, close to the smaller curvature of the stomach, and beneath the liver. As it was impossible to bring the partially-collapsed stomach out of the wound, I cut through the left rectus, and the liver having been retracted proceeded to sew up the hole in situ. Mean-

time there had been several slight gushes of fluid and gas through the perforation, and it was noted that the whole peritoneal cavity had been infected. A Lembert suture was passed across the middle of the ulcer through healthy tissue—a most important procedure, as it not only immediately closed the opening but also threw up the stomach wall into two parallel folds, thereby greatly facilitating the subsequent stitching. This was done in continuous suture with No. 1 catgut by means of a curved intestinal needle. Stab wounds were then made in each loin and gauze drains drawn through. A small median incision above the pubis disclosed the fact that the pelvis was full of milky fluid. Through this opening the pelvis was washed out with warm saline solution, and then the abdomen by sluicing along both flanks till the fluid ran out clear at the higher incision over the stomach. This manœuvre was much simpler and safer than using the higher opening for cleansing purposes. The saline washed before it the stomach contents back along the paths by which they had invaded the general peritoneal cavity, and cleansed the kidney-liver cul-de-sacs by a stream from below. A split rubber tube and gauze drain was placed in the pelvis. A gauze strip was adjusted over the anterior surface of the stomach and another in the lower corner of the upper abdominal wound. Both wounds were then carefully sewn up in layers, the patient placed in the perineal position, Douglas' pouch opened per vaginam, and a gauze drain introduced.

The after-treatment gave little trouble; warm water was given from the start by mouth, and then peptonised milk, liquid peptonoids, Benger's food, etc. A sharp attack of perihepatitis yielded quickly under antiphlogistine dressings. All the drains acted freely at first, were gradually shortened, and finally removed as the discharge lessened and then ceased.

There was an irregular temperature, higher at night, which during the fourth week of convalescence gradually took on a septic appearance, rising regularly to 102° each night and falling to normal in the morning. There were no rigors, however, and the patient always looked well. No sign of pus collection could be found. The patient was therefore given daily for six days antistreptococcic serum hypodermically, with immediate and lasting good effect. The temperature came down at once, and remained down, and convalescence was assured.

REVIEW AND NOTICES OF BOOKS.

TEXT-BOOK OF ORGANIC CHEMISTRY FOR MEDICAL STUDENTS. By G. von Bunge. Translated, with additions, by R. H. Aders Plimmer, D.Sc. (Lond.), London: Longmans, Green & Co. Pages 260 + viii. Price, 6s net.

A knowledge of the chief facts and main principles of organic chemistry is at the present day recognised as an essential part of the training for the future medical practitioner. Many, however, advocate that instruction in chemistry should be limited to that portion of the subject obviously useful to the medical student. Surely this policy is a mistaken one, though it may be founded on good premises. Chemical training must insist on instruction in chemistry, not on instruction in the applications of chemistry. Teaching may be carried out also with those groups of substances which enter into the composition of living things.

Professor v. Bunge has prepared a text-book for medical students upon these lines. He has endeavoured to inculcate the relations of the main carbon compounds, while he has devoted consideration to the compounds which are to be found in living bodies. The book is useful as an introduction to organic chemistry since its scope is limited. Those who have learnt already to appreciate the power of Professor Bunge to render interesting what he writes upon will find in this volume many instances of the master's skill. The first chapter, epic in tone, describes the history of the guiding tone of organic chemistry, as it unfolds our knowledge of the composition of one or two substances. Subsequent chapters deal with the hydrocarbons and their derivatives, with glycerol and the fats, with the carbohydrates, with the glucosides, with the aromatic substances, with the alkaloids, and with the proteins. An appendix by Dr. Plimmer gives a short description of the ordinary methods of organic chemistry, so that the student may comprehend the processes in most constant use. This book would form a more convenient text-book for the student of medicine than several of those in common use.

TREATMENT OF THE DISEASES OF CHILDREN. By Charles Gilmore Kerley, M.D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Octavo volume of 597 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Melbourne: Jas. Little, 430 Bourke-street. Price, 21s.

This book of treatment is written for the benefit of the general practitioner. A lot of books have been written for him lately. There must be a spirit of philanthropy abroad. It is a large, heavy volume. Most of the American books are large. That brevity is the soul of wit may be endorsed by Americans, but it is not always practised by them. The weight of a book should be in its utterances and its largeness in views. Looked at in this way we cannot say that American books impress us as being superior to English ones. In the book before us the general practitioner will find the treatment of the medical diseases of children dealt with at length and on the whole satisfactorily. The author has evidently relied largely on his own experience for his matter. Foods and feeding are fully and capably dealt with, though after the manner of all present-day American authors he has made too much of the system of feeding by percentages.

At the end of the book there is a chapter on gymnastic therapeutics, which is of some value. The treatment of the commoner skin diseases is described, but the

X-ray treatment of ringworm of the scalp, which has given such brilliant results in London and on the Continent of Europe, is not mentioned. There are a number of useful illustrations scattered throughout the book.

HYGIENE AND PUBLIC HEALTH. By Lonis C. Parkes, M.D., D.P.H., and Professor H. R. Kenwood, M.D., D.P.H. Third edition. London, W.C.: H. K. Lewis, 136 Gower-street. Price, 10s 6d.

The rapid appearance of a third edition of this manual would be sufficient proof, if such were wanting, of its value to students of hygiene. The present edition has been partly re-written and considerably added to, and is in every way a credit to its distinguished authors. The most interesting chapters in the book are those on the disposal of refuse and school hygiene. These chapters contain a great deal of useful information which has not yet been given in any manual of hygiene. The chapter on infectious diseases is also a very useful one and sets forth the current views on immunity. We note, however, that the section on plague is scarcely up-to-date in its treatment of the epidemiology of the disease, and does not indicate with sufficient clearness the overwhelming importance of the influence of the rat and flea in determining the epidemic prevalence of that disorder. The volume can be recommended to all students of hygiene.

A COMPARATIVE STUDY OF THE INFLUENCE OF COD-LIVER OIL AND COD-LIVER OIL EMULSION UPON THE NUTRITION OF NORMAL AND TUBERCULOUS PIGS. By J. W. Wells, M.D., D.P.H., etc. Manchester: The University Press.

This is a record of some experiments conducted in the Public Health laboratory of the University of Manchester, under the supervision of Professor Sheridan Delépine, with a view of testing, if possible, the value of cod-liver oil in the treatment of tubercular disease. Much difference of opinion has existed amongst clinicians as to the value of this preparation, some maintaining that it has some specific effect upon the tubercle bacillus, while others maintain that the oil is merely an easily assimilable fat for which other fats, such as butter, cream, olive oil, etc., may be substituted. In these experiments pigs were selected because they are animals capable of thriving on diet suitable for human beings and of taking readily cod-liver oil and cod-liver oil emulsion. The pigs used were of the same breed, age and weight, and kept under exactly similar conditions. After keeping these animals under observation some time in order to ascertain that they were all healthy and thriving, the substances tested were administered to the various pigs in doses calculated weekly. After ascertaining that the pigs were all thriving on the dose of oil given to them, they were all rendered tuberculous, and each pig kept under observation for several months. Some were killed at the end of four months to ascertain the state of comparatively early lesions; others were kept for 7-8 months for the study of later changes. A careful examination was made of each pig immediately after death. These results are carefully tabulated, every detail being fully recorded, and the author considers that the experiments demonstrate that pigs taking the same diet gain weight more rapidly, and consequently are better nourished, when a suitable dose of cod-liver oil is added to the diet, and that pigs affected with tuberculosis continued to increase rapidly in weight and appeared quite comfortable for a long period when the cod-liver oil emulsion was added to the usual diet. The tubercular lesions showed signs of possible recovery, tuberculous glands became fibrous and calcified, and the tubercle

bacilli were difficult to demonstrate. These experiments seem to have been carried out with every precaution against error, and the results are interesting in view of the conflict of clinical opinion on the value of cod-liver oil and emulsion. They seem to have settled the question that these preparations are of distinct therapeutic value in all tubercular diseases.

PELVIC INFLAMMATIONS IN THE FEMALE. By Thomas Wilson, M.D. (Lond.), M.Ch. (Birm.), F.R.C.S. (Eng.). Bristol: John Wright & Co. 1907. Price, 3s 6d net.

This brochure of 66 pages presents in print the Ingleby Lectures on Pelvic Inflammations in the Female, delivered in the University of Birmingham in May, 1907. The causation, pathology and bacteriology of the different varieties of pelvic infection are fully described. The various types of these diseases are considered clinically, and the treatment is fully detailed. Finally a table of the operative procedures carried out is given. From this it is seen that the author is conservative throughout, even in suppurative conditions, for in 36 cases out of 104 of pyosalpinx he removed one set of appendages only. It is open to question, however, if conservatism in such cases is not overdone, as in most cases of this kind the infection is bilateral, as the subsequent history of these so-called conservative operations too often proves. The old method of dealing with cases of pyosalpinx by mushroom-pedicle containing infected tube is, we note with pleasure, given up in favour of cutting out the uterine end of the tube and over-sewing. The whole subject is dealt with in a complete and systematic manner, brought well up to date, and will amply repay careful perusal.

THE SANITARY RECORD YEAR BOOK AND DIARY, 26th issue. 1908. London: The Sanitary Publishing Co., Ltd., 5 Fetter-lane. Price, 2s 6d net.

We have received a copy of the above-named publication, a very handy book, which contains besides a most convenient diary interleafed with blotting paper, two days on a page, a brief sketch of some popular health resorts, postal rates, regulations, etc., sanitary legislation of 1907, prospective legislation, useful memoranda for sanitary engineers and surveyors, government departments, sanitary and allied associations, sanitary inspectors, examining bodies, etc. In all there are 70 pages of most useful information contained in the volume, which is excellently printed and bound. The year book and diary must prove of great value to medical officers of health, and all connected with sanitary work; indeed once used it will be proved indispensable.

A MANUAL OF PATHOLOGY. By Guthrie McConnell, M.D. Illustrated. Philadelphia and London: W. B. Saunders Company. Melbourne: Jaa. Little. 1906. Price, 10s 6d.

This is a very useful manual of pathology, which is intended not so much as a work of reference but as a handy working volume for the student in his course of study of pathology. So much is embraced in the study of pathology nowadays that in the compass of one small volume of 500 pages not much more than a bird's-eye view of the subject can be presented. The individual chapters are as a rule good but very variable, those dealing with the blood and blood diseases being rather poor; those on the nervous system are also incomplete. Still the work is a useful compendium of the salient points on pathological anatomy, the illustrations are good, and the work printed and bound in Saunders' best style.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH FEBRUARY, 1908.

THE SYDNEY MILK SUPPLY.

IN this twentieth century we are disposed to boast of the great advances which have been made in our knowledge in various directions ; and probably in no department of science has so great an advance been made as in the domain of bacteriology—a branch of science which we may say is almost entirely new within the last forty or fifty years. We are now familiar with the *materies morbi* of many of the infective disease processes ; we know a good deal, or think we do, of the life history of many of the pathogenic bacteria ; and this knowledge has been practically utilised in many of the methods of procedure to safeguard the public health.

One of the most important of these methods is based upon the knowledge that milk is an excellent medium for the growth and conveyance of the organisms of some of the commonest, yet most serious, of the infectious diseases. We know that epidemics of typhoid fever, scarlet fever and diphtheria have been caused by the contamination of milk at the dairy with the organisms conveyed to it from a sufferer from one or other of these diseases ; and it is only natural that special attention should be directed in the public health legislation to safeguard the purity of the milk supply. But while a great deal can be done by the health officials in carrying out the provisions of the Health Act in supervising the storage and conveyance of milk, yet it is impossible to prevent at times the pollution of milk with the organisms of infective diseases, which may have been unrecognised among the employees of the dairy, and the damage is done before the isolation and disinfection can be completed.

In view, then, of this danger, it is practically impossible to prevent serious epidemics of infectious disease arising from time to time in this manner, and the only real safeguard is for every householder to boil all the milk used in his household, and to prevent the possibility as far as practicable of contamination of the milk, after it is boiled, by flies. If this practice were to be adopted in every household, then the risk of an epidemic of typhoid fever from an infected milk supply would be nil.

But the purity of the city milk supply must be considered from another point of view. Milk may be adulterated by the addition either of water alone or of some chemical antiseptic to prevent the milk turning sour. Fortunately, we have no reason to believe that the addition of antiseptics is anything but a very rare occurrence at the present time, but judging by the frequent prosecutions the adulteration of milk by the addition of water is comparatively common. According to an article in the *Sydney Morning Herald*, although under the Health Act it is the duty of municipal councils to take samples of milk and have them analysed with a view to checking possible adulteration, some 100,000 people reside in the suburbs of Sydney whose councils have been evidently negligent of their duties and have exercised no supervision over the milk supply in their districts. Not only have these councils been negligent, but they justify their negligence upon various grounds. Confidence in the integrity of their local dairymen, want of funds to pay an inspector, too much occupied with more important (!) matters, etc., are some of the extraordinary reasons advanced.

It is quite obvious in view of these statements and of the neglect of the councils to carry out the provisions of the Health Act that some amendment of the Health Act in the way of giving increased power to the Board of Health is urgently required. It is a public scandal that the supervision of the

milk supply of the city and suburbs should depend on the whims and fancies of the local aldermen; and until this state of things is altered by legislation the inhabitants of the metropolis must run the risk of epidemics of serious diseases, and the infantile death-rate must remain higher than it need be.

THE SCIENTIFIC USE OF EVIDENCE IN SURGICAL PRACTICE.

IN the course of an address on this subject, Mr. HOWARD MARSH, the Professor of Surgery in Cambridge University, dealt with some matters of every-day interest, but which we are sometimes apt to overlook. He began by pointing out the extreme importance of evidence in the eyes of the law, and that the two forms of evidence, the direct or positive, and the indirect or circumstantial, are entirely distinct from one another, and must be kept apart, so that the value of each in any particular case may be duly weighed and appreciated. In the practice of both law and medicine all the *facts* of the case must be ascertained, but while the lawyer, in the interests of his clients, utilises the facts in a special way, suppressing some and magnifying others, so as to present the case in the most favourable light to the jury, the medical practitioner cannot adapt the facts to his view of the case; all the evidence, direct and indirect, must be sought for, and this must govern his opinion and practice. If he overlook or misconstrue certain facts, then he inevitably falls into error.

Unfortunately, it is always easier to be superficial rather than thorough. Superficial examination will only enable a practitioner to ascertain a part of the evidence which is available, and a verdict based on imperfect evidence is almost certain to be inaccurate. Mr. MARSH used two common morbid conditions to illustrate how conceptions of diseases were in early times formed

entirely from their superficial aspect. In tuberculosis of the spine, the deformity was the most obvious defect, and so the patient was said to have "angular curvature." And a patient who had obstruction of the bile ducts from some disease of that region was said to be suffering from "jaundice." The symptoms were elevated into the position of a specific disease. Nowadays we recognise these facts, and no one would rest satisfied with a diagnosis of "angular curvature" or "jaundice." Further evidence is sought to enable the practitioner to arrive at a correct opinion.

In a very clear and emphatic way Mr. MARSH further shows how unscientific and inaccurate it is to depend upon a "list of symptoms" which are usually presented by a patient suffering from certain diseases. The "circumstantial" evidence, if trusted, apart from the direct evidence which is available, will lead us astray. He mentions, for example, the danger of confounding early infantile paralysis or diseases of the lumbar spine with hip disease if we trust to mere superficial signs. In such a condition every particle of evidence must be sought and duly weighed without any preconceived opinions, otherwise grievous error may result. Here we may incidentally remark on the mischief which, in our opinion, is wrought by the publication of small handbooks of symptoms and diagnosis of disease. The use of such books tends to the promotion of unscientific methods of diagnosis and practice. No two patients suffering from the same form of disease ever present exactly the same symptoms, and it must be only by a proper scientific use of the two forms of evidence that a correct diagnosis and treatment can be formulated.

It is important, too, to emphasise the fact that in these days, with our improved methods of physical examination, we can generally obtain both circumstantial and positive evidence upon which to form our diagnosis. As an illustration of this, Mr. MARSH refers to the

fact that not so long ago we had to depend on circumstantial evidence alone in the diagnosis of renal calculus. The "list" of symptoms sometimes lead us astray, but now, with the use of the X-rays, we can frequently obtain positive evidence the value of which can be duly weighed and compared with the circumstantial, so that to-day the diagnosis of renal calculus rests upon a much surer foundation.

The chief object of this address then is to emphasise the importance of thoroughness in the investigation of every case that comes before us, and we know by experience that more mistakes are made by "not looking" than by "not seeing."

THE MONTH.

The Melbourne Hospital Site.

We are glad to learn that the long dispute over the site for the building of the new Melbourne Hospital promises soon to be settled. Our readers will remember that there was much discussion as to the *pros* and *cons* of rebuilding the hospital on its present site or upon the site of the present pig market, and there appeared to be no possibility of unanimity on the question. The Premier of Victoria, Mr. Bent, stated a few days ago that in his opinion the site of the Immigrants' Home on the St. Kilda-road would be the best position for the new hospital. There was a clear space there adjoining the site of the present homes, and as a portion of the northern end of the Government House domain could well be spared, he would be willing to give 10 or 12 acres adjoining the site of the homes for the new hospital. The homes, which were now a public eyesore, would have to be removed, and that would make available a splendid site for the purposes of the hospital. As far as he was personally concerned, he would be prepared to hand over the Immigrants' Homes site, with 10 or 12 acres adjoining, to the hospital committee for nothing. A special meeting was accordingly called by the Melbourne Hospital Committee, to which the honorary medical and surgical staff were invited, for the purpose of coming to a definite decision concerning the selection of a site for the erection of the new hospital. A meeting was held on January 28th, and there was a full attendance of the committee and honorary staffs. The matter was fully

discussed. Mr. George Godfrey, M.L.C., moved that the offer by the Premier of the Domain site be accepted. Dr. W. Moore moved an amendment that the pig market site was the best of the three sites under consideration for the building of the new hospital. On being put to the meeting the amendment was lost by 7 votes to 12. On the original motion being put it was carried with only 4 dissentients. The matter, however, has not yet been finally decided.

The Care of Feeble-minded Children.

Another step in advance in dealing with feeble-minded children has been made in New South Wales. A new Educational Home to accommodate 24 children has recently been erected in Pennant Hills road, Parramatta, for children of feeble intellect, and has been formally taken possession of by Dr. Mackellar, the President of the State Children's Relief Department. This home is the result of the work of Mrs. Jefferis, wife of the Rev. Dr. Jefferis, of Adelaide, who, with Mrs. Garran and Lady Windeyer, was responsible for the inauguration of the State Children's Relief Department. Mrs. Jefferis, on leaving this State for South Australia, handed over some funds which she had succeeded in raising to the department, with a view to the money being utilised for the benefit of children of feeble intellect. The Chief Boarding-out Officer, Mr. A. W. Green, suggested the establishment of a boarding school, where feeble-minded children might receive sufficient education to enable them to earn their own living instead of their becoming dependent on State support. The President, Dr. Mackellar, approved of this suggestion, and with the concurrence of Mrs. Jefferis this new home has been erected. A number of children of this class who are at present under Government care, but receiving no instruction, will be drafted into this home as soon as a suitable staff has been appointed.

The Society of Tropical Medicine and Hygiene.

We have been asked by Dr. F. M. Sandwith, of London, one of the secretaries, to draw the attention of our readers to the newly established Society of Tropical Medicine and Hygiene. The Society has already a fellowship of nearly 200, belonging to many countries, most of them residing outside the United Kingdom. All registered medical practitioners and others interested in scientific pursuits, relating to tropical medicine, whose

qualifications are satisfactory to the Council are eligible for election as Fellows. The objects of the society are to promote and advance the study of the diseases and hygiene of warm climates, to facilitate intercourse and discussion amongst those who are interested in tropical and exotic disorders, and generally to deal with cognate matters. The annual subscription is £1 ls., but a Fellow may at any time pay a composition fee of £15 15s., and be thereby exempted from paying any further subscription. Fellows are entitled to receive a copy of the society's transactions of each year, for which their subscriptions have been paid, and such other publications issued by the society during that year as shall have been ordered by the Council to be supplied to the Fellows free of charge. Subject to any by-law that may be made by the Council, they shall be entitled to the use of the library, laboratories and such other premises as shall be set apart for the use of Fellows. We commend this society to the notice of any of our readers specially interested in the subject of tropical medicine, and any further information can be obtained on application to Dr. Sandwith, 31 Cavendish Square, London, W.

The Labour Party and the Hospitals.

At the annual conference of the Political Labour League of New South Wales, recently held at the Trades Hall, Sydney, some proposals with regard to the management of the public hospitals were submitted by the Platform Committee, and after some discussion were approved. Among other things they suggest that all the public hospitals should be supported by shire and municipal rates, supplemented by Government subsidies, and that boards controlling hospitals should be elected by adult suffrage. They also suggest that in serious cases where patients are unable to reach the hospitals, Government medical officers shall attend to them in their homes or wherever located. The wording of this clause is somewhat vague, but we presume it to mean that patients who are eligible for hospitals and unable to pay for private treatment should be attended gratuitously by Government medical officers. The League is also strongly in favour of the proposal that women should have the same rights as men to be on the medical staff, and one member suggested that there ought to be a female medical officer in every hospital. They also advocate the establishment of a maternity ward in connection with all hospitals, with provision for

home treatment where necessary. Such a proposal is not only impracticable but quite unnecessary, in view of the existence of special hospitals for this work, and the provision they make for home treatment. It was further proposed that the nurses should not work more than eight hours out of the twenty-four, but this suggestion was amended in favour of a reduction in the working hours of the nurses to 44 hours per week. While these suggestions may be admirable in themselves, we think that at present they are outside the range of practical politics.

Medical Inspection of School Children in South Australia

The Government of South Australia, recognising the importance of the movement for the medical inspection of school children, has approved of a scheme which has been drawn up by Mr. Williams, the Director of Education, and this work is to be begun immediately. Briefly, this embraces the inspection of 1000 public school children selected from metropolitan schools, country town schools, and distinctly rural schools. The details of inspection are based on the schedule of the Royal Commission on Physical Training (Scotland), which embraces all that has been proposed in any schedules in the Commonwealth and more. In cases where the parents, for any special reason, may wish a particular child to be exempted from selection for inspection, their wishes will be respected. No remarks on any individual pupil will be made, no medical advice tendered about either home conditions or physical condition, no surgical operations recommended, no spectacles or respirators ordered to be worn, no cuspidores or pocket-filters advised to be used, no unnecessary enquiries instituted or recorded. A good many of the schedule entries will be made by the teacher alone, and some of the entries will be made by the teacher under the inspector's supervision. To ensure uniformity of standard in entries like "health appearance," "state of nutrition," "keenness of hearing," etc., all these preliminary inspections will be made by one inspector. The actual work has been entrusted to Dr. R. S. Rogers, who recently gave the teachers in training a preliminary course of instruction in the subject, and has devoted a large amount of attention not to general and special psychology alone, but to the practical details and the summarised results of anthropological measurements.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Victoria.

An ordinary meeting of the Branch was held on January 15th in the hall of the Medical Society of Victoria. The President (Mr. G. A. Syme) occupied the chair.

The meeting was held in conjunction with the Pediatric Society, and the subject for discussion was that of "Summer Diarrhoea in Infants." The discussion was introduced by the reading of four short papers—on Etiology, by Dr. R. R. Stawell; Symptomatology and Diagnosis, by Dr. P. B. Bennie; Prophylaxis, by Dr. A. Jeffreys Wood; and Treatment, by Dr. F. Hobill Cole.

Dr. STAWELL said that there were three types of diarrhoea in infants. The first was that which occurred in breast-fed children. There were curd-containing motions without constitutional symptoms. This was irritative diarrhoea, or acute intestinal indigestion. Bacteriological examination showed only the normal or obligatory intestinal bacteria. The second type was that with frequent motions containing blood and slime. This was dysenteric diarrhoea, or *Shiga*-colitis or acute infective diarrhoea. There was an acute inflammation due to bacterial invasion. The stools contained the *Shiga* bacillus or the *Flexner* bacillus. This dysenteric type constituted only a small part of those cases seen here. The majority belonged to the third type, that with great constitutional disturbance, prostration, often without fever. There was no blood in the motions, which were profuse, watery and markedly offensive. This might be called fermental diarrhoea, gastro-enteric intoxication, or enteritis. The bacteriology was various. The dysenteric bacilli were absent. The enteritis in prolonged or severe cases frequently spread downwards to the colon, causing the presence of more mucus in the motions, etc. The last two types alone should be included in the term "Summer Diarrhoea." As stated, fermental diarrhoea was the most common in Melbourne. It was caused not only by many organisms of the typhoid or paratyphoid type, but might be caused by an auto-infection, by an acquired virulence of the ubiquitous colon type of bacillus. Food contamination, however, was the prime contributing factor in almost every case. The lactic acid bacilli and other fermentative bacilli of milk were not directly virulent. Sour milk was not dangerous because sour, but because stale or dirty. The life history of the bacilli of dysentery was not well known. They only grew on certain culture media in the laboratory. They flourished, however, as parasites, and existed as non-virulent organisms in the intestines of some children and many adults. Their dissemination was probably similar to that of typhoid fever. Flies must lie under suspicion as carriers. Water must be considered as an all-important factor. Atmospheric heat was undoubtedly a predisposing cause in depressing the vitality of the infant, but it was rarely alone, in his opinion, a sufficient cause. In America many observers considered thermic fever a definite cause of infantile diarrhoea. It might be so when one considered how much more frequent sunstroke and heat exhaustion were in American cities than in Melbourne. As a rule there was some pre-existing indigestion especially necessary as a predisposing cause in cases due to auto-infection.

Dr. BENNIE.—Symptomatology and Diagnosis.—The symptoms were those of an acute toxic inflammatory diarrhoea. The baby for some days had not been himself with vomiting or irritative diarrhoea. He, however, takes notice of things, and is happy and smiling. Then he becomes restless, with some discomfort, apparently abdominal, and some tympany. He draws up his legs and cries. The temperature rises, and the vomiting, if present, increases. There is purging, with green stools, then frequent and watery. Thirst was great, but everything was vomited. There was no smiling now. Then came collapse, and the cry became a moan. The face became drawn and pale, with an expression of increasing anxiety. The eyes were drowsy half-open, and later had a mucous film. The angles of the mouth were drawn down and the nose became blue. There were three stages—restlessness, vomiting and purging, prostration, which, however, overlapped. The main symptoms were not so much inflammatory as toxic, due to the effect upon the nervous system. If there were a sudden cessation of the vomiting and purging without amelioration of the constitutional symptoms, death was near. The stools at first were acid, then neutral, and later alkaline. Delirium and convulsions might be present. The temperature was variable, but the initial rise was as a rule proportional to the severity. The pulse became irregular and intermittent, and might reach 150 or more per minute. The respirations followed the pulse as a rule. The skin, at first dry, became moist but cold and clammy. There might be erythematous or other eruptions, sometimes before the onset. The tongue was always furred and might be cracked, and stomatitis was often present. The abdomen became tender along the colon and retracted. The urine in about 60 per cent. of cases contained albumen; there might be some parenchymatous nephritis—and often contained indican. In severe cases death occurred within two or three days. If life was prolonged, recovery usually took place with proper treatment, though relapses occasionally proved fatal. He then discussed the differential diagnosis between summer diarrhoea and thermic fever, intussusception, tubercular meningitis, typhoid fever, scarlet fever, pneumonia, ptomaine poisoning and other forms of poisoning.

Dr. A. J. WOOD.—Prophylaxis.—He agreed with Dr. Stawell that food deterioration was the main cause. Thus the first axiom must be the insistence upon breast feeding if at all possible. He would even prolong the period of lactation if the usual time for weaning came during the summer months. Where the breast milk was not available, cows' milk was the staple substitute. It should be obtained direct twice daily. It should be at once sterilised by standing the receptacle in water up to the level of the contained milk. This was boiled steadily for 20 minutes. The milk must then be rapidly cooled down in cold water and kept vigorously covered. The cooling down at once was important. No milk for use by an infant must be kept in a living room, and the fireplace or window-sill was not the ideal place to keep it, as was usually believed. The care of the bottles and nipples was most important. They should be boiled after each feed. He described the routine adopted at the Infant Asylum. The brush often supplied with bottles was an abomination, and should be relegated to the dust-heap at once. The ubiquitous dummy if used must be boiled several times a day. The pillow, mattress and cot required care, especially if there were vomiting. The pillow-case may be clean but the contents of the pillow stinking. A jaconet layer beneath the pillow-case was advisable. Fresh air day and

night was a necessary condition for the health of an infant. The old bogey that night-air was injurious was fast dying out. The necessity of cleanliness of the hands should be impressed upon the mother or nurse. They become easily contaminated from the napkins, and should be washed in lysol or other antiseptic. Napkins soiled should at once be removed from the neighbourhood of the child and immersed in phenyle. In the matter of diet the infant should have in summer less milk and an increased amount of boiled water. He advocated the establishment of municipal milk depôts at least during the summer months.

Dr. F. HOBILL COLE. — Treatment. — The gastro-enteric condition was the most common, and briefly stated his line of treatment was as follows:—Stop milk absolutely for a few days, substituting cool clean boiled water. If vomiting, a tenth of a grain of calomel every hour until two grains had been taken; if no vomiting, one or two drachms of castor oil. If vomiting persist, use irrigation of the stomach; irrigation of the bowel at once, repeated if necessary every 24 hours. Continue the laxative treatment with 8-10 minims of castor oil in emulsion every three or four hours, with opium if tenesmus. After 24 hours give barley or rice water. After 48 hours give mutton or chicken tea. After 72 hours whey, perfectly made from junket, and meat juice. Later give converted starch and biscuit with water. The great difficulty arose in getting back to the full milk diet. He first gave cream-free milk with Bengers food. Open air was a necessity night and day, and frequent cool sponging. He used methylated spirit compresses to the abdomen. Gastric lavage was good treatment at the onset. He preferred the use of normal saline solution. Rectal and colon lavage was valuable in colitis. It might be difficult when tenesmus was marked; but it lessened the tenesmus and was most soothing. It might be used as often as twice daily. With regard to drugs, he believed only in eliminative treatment. Bismuth was often very harmful, especially where the temperature was high and the motions foul. Alcohol as a rule was to be avoided. Strychnine, nasal feeding, or the subcutaneous injection of saline solution might be necessary in severe cases.

Dr. D. McM. OFFICER, in opening the discussion, said that while the study of the intestinal flora had been of great help etiologically, it had not been of much assistance in the treatment of these cases, in spite of the army of intestinal antiseptics and purifiers on the market. Lavage of the bowel was of use if done frequently enough. One expected more, however, from dietary treatment. Prophylaxis was most important. It could not be too clearly impressed upon mothers that dentition was not a cause of diarrhoea. He believed in the irrigation of the bowel with silver nitrate—half a grain to the ounce—in colitis. He relied upon barley-water with plasmon jelly and beef-juice in these cases, and in returning to a milk diet he always began with peptonised milk in a dilution of 1 in 10.

Dr. W. A. WOOD considered that the best results of treatment were not always secured, owing to want of attention to details in the preparation of the food, etc. Here came in the great value of municipal depôts in providing not only milk, but such preparations as barley-water, etc., properly prepared. The disease, as it occurred here, seemed to differ from that in other countries; and he considered that an enormous amount of original work bacteriologically was to be done here. He hoped there would soon be an adequately-fitted laboratory at the Children's Hospital.

Dr. H. O. COWAN considered prophylaxis the most important aspect of the subject. He had been in practice in an industrial centre on the fringe of a rural dis-

trict. In 11 years there had not been more than four deaths in the rural districts, while there had been a veritable slaughter of the innocents in his immediate neighbourhood, where the milk supply depended upon outside sources. He agreed with the importance of early lavage of the stomach, but he was not satisfied with routine washing out of the lower bowel.

Dr. WALTER SUMMONS discussed the action of preservatives in milk. He considered that they acted as a strong predisposing cause by inhibiting the action of the normal ferments.

Dr. E. ALAN MACKAY regarded lavage of the stomach and intestine as most valuable measures. The frequency of the washing out of the lower bowel depended upon the severity of the case. He described the technique of the procedure, and considered that the time spent was justified by the results.

Dr. V. MACDONALD thought that dentition might have more effect in at least keeping up reflex irritation of the bowel than it was usually given credit for. Lancing of the gums might be of some use.

Dr. CONSTANCE ELLIS believed in carefully writing out all instructions with regard to the preparation of the food and the prevention of further infection. Half an hour thus spent saved time and anxiety later. She believed that the eliminative drugs were by far the most important.

Dr. J. R. LEE had had some good results from intestinal antiseptics, especially the sulphocarbolate of zinc. In the feeding of the child he based his quantities upon an age somewhat less than that of the patient.

Dr. J. D. KING SCOTT emphasised the value of breast-feeding in prophylaxis. He had found Allen and Hanbury's byno-plasma of great use in maintaining the supply of breast milk.

Dr. H. DOUGLAS STEPHENS, in discussing the pathology, agreed that the fermental type was the most common. The lesions were mostly in the last two feet of the small intestines. The colon was not affected early. The organisms present were extremely varied. He believed that the variety here was not due to any one organism. He had often found a small degree of peritonitis present post mortem. The flaky lymph as a rule showed only one variety of organism, a diplococcus, not distinguishable from the diplococcus pneumoniae.

The PRESIDENT said that in listening to the discussion he had been struck with the fact that treatment to-day was practically what it had been 20 years ago.

The openers of the discussion briefly replied.

New South Wales.

Council Meeting.

THE Council met on Tuesday, January 14th, 1908. Present: Drs. Newmarch, Crago, Rennie, Pockley, Hinder, MacCormick, Jenkins, Clarence Read, Dick, Todd.

The minutes of the previous meeting were read and confirmed.

Hon. Treasurer's Statement.—General: Credit, £705 13s 4d; Gazette: Credit balance, £507 10s 2d.

Election of Members.—Dr. Martin Magill, Dr. H. Blaney, Dr. Richard Perkins, Dr. Cyril Shepherd, Dr. Robert Sproule, Dr. Norman Hansard. Another gentleman's name was submitted for election, but deferred for the present.

Letter from Mr. James Trehair, of St. John's Lodge, Newtown, asking for a conference, and forwarding copies of the new by-laws of the lodge. Resolved—"That Drs. Newmarch, Todd, Crago, Dick and Clarence Read be delegates to meet the representatives

of the St. John's Lodge, and to consider the rules of the lodge before the conference."

Medical Secretary of Home Association with reference to the Organisation Committee. Resolved—"That this division be continued as a constituency and elect a representative as previously."

Invitation of Professor Simeon Snell to Branch delegates to attend the annual meeting at Sheffield. Received.

Letter from Organisation Committee relating to the grouping of Branches. Received.

Border Medical Association, applying for affiliation. Resolved—"That matter be allowed to remain as at present."

Western Medical Association, asking for affiliation to the New South Wales Branch. Resolved—"That the W.M.A. be asked to alter the rules so that all members of the Association should be members of the B.M.A., and other Associations be also written to to the same effect."

Letter from Dr. Gordon MacLeod *re* an advertisement in the *B.M. Journal*. General Secretary be written to.

Queensland.

A MEETING of the Queensland Branch was held on Friday, February 7th; Dr. J. L. Gibson, president, in the chair, and an attendance of ten members.

Dr. JEAN THOMSON showed two cases of ankylos-tomiasis:—1. A girl, aged 6 years, from Woombye, recovered after thymol treatment. 2. A boy, aged two years, also from Woombye, was treated with eucalyptus oil for two months and cured.

Dr. TURNER made comments upon the two cases, and considered they should be made notifiable.

Dr. FLYNN reported having treated successfully five cases last year by thymol.

Dr. THOMSON said that Dr. L. Cooper, who had been using eucalyptus, had found it as efficacious as thymol.

Dr. TURNER showed a girl, aged five years, who had suffered from infantile paralysis during the epidemic three years ago. She now presented double talipes equinus and flexion at knees with great waste of muscles. He proposes to do tendon transplanting.

Dr. FLYNN showed a spike of rye-grass which had remained in a child's lung for three years and seven months. It was coughed up by the child. The symptoms were chiefly spasmodic coughing and hæmoptysis from time to time. X-ray photographs had failed to detect the foreign body. There had been some consolidation at the end of the right lung, which has now cleared up, and the child is fat and well.

Dr. GIBSON showed an eye which he had enucleated from a girl aged 12 years, and a small piece of a copper percussion cap which was found in it. The child had been hammering a percussion cap on a stone, and a piece of the exploding cap struck the eye. When seen six days afterwards the pupil was occluded, lens cataractous, iris discoloured, eye deeply injected, a small wound near the inner margin of the cornea, and behind this a rounded hole in the iris about 1mm. across. The eye was removed on the tenth day. The lens was found broken up and opaque. The vitreous behind the wound in the iris and adjoining the broken up lens was discoloured blue as by copper, and a small flat 1½mm. square piece of copper was found in this discoloured vitreous. It was stated by the mother that the child had often exploded percussion caps in the same way without harm. Dr. May, of Bundaberg, had sent him the case.

Dr. SALTER showed a large prostate gland removed from a man 84 years old. An attempt had been made to use stovain anæsthesia, but was unsuccessful, because of ankylosis of vertebræ. Ether was used. The operation was by perineal method.

Dr. LOVE showed a multiple fibro-myoma of the uterus with two parovarian cysts which had been removed with difficulty owing to adhesions.

Dr. O'BRIEN gave his experiences of practice in North Queensland, and gave accounts of his researches in tropical diseases.

Dr. TURNER read a paper on a case of "Infantile Paralysis simulating Meningitis—Tendon Transplantation."

Australian Medical Congress.

MELBOURNE, OCTOBER 19-24, 1908.

THE following is a provisional programme of proceedings:—

Saturday, October 17—10 a.m. to 5 p.m., Registration of members at Town Hall.

Monday, October 19—9.30 to 10.30 a.m., Registration of members in Wilson Hall; 10.30 a.m., General Business Meeting in Wilson Hall; 8 p.m., Inaugural Meeting in Town Hall.

Tuesday, October 20—9 a.m., Hospital and Museum Demonstrations; 10.15 a.m., Address in Medicine (Wilson Hall); 11 a.m., Address in Pathology and Bacteriology (Wilson Hall); 12 noon, Sectional Meetings (University); 1.15 p.m., Lunch at University; 2 p.m., Sectional Meetings (University).

Wednesday, October 21—9 a.m., Hospital and Museum Demonstrations; 10.15 a.m., Discussion on Syphilis (Wilson Hall); 1.15 p.m., Lunch at University; 2 p.m., Sectional Meetings (University).

Thursday, October 22—9 a.m., Hospital and Museum Demonstrations; 10.15 a.m., Address in Surgery (Wilson Hall); 11 a.m., Address in Public Health (Wilson Hall); 12 noon, Sectional Meetings (University); 1.15 p.m., Lunch at University; 2 p.m., Sectional Meetings (University).

Friday, October 23—9 a.m., Hospital and Museum Demonstrations; 10.15 a.m., Sectional Meetings (University); Lunch not provided at University. 2.15 p.m., Discussion on Hospitals (Hall in City).

Saturday, October 24—10.15 a.m., Final General Meeting (Hall in City).

N.B.—A time table will be prepared for each section, showing the time it is proposed actually to occupy and the distribution of the work.

PRELIMINARY DRAFT OF SECTIONAL WORK.

I.—MEDICINE.

The Secretary (Dr. Stawell) reports that the following subjects have been selected for special consideration, and that many papers dealing with them have already been promised:—

The Conditions of Anæmia which occur in Australasia.

The Types of Tuberculosis, with reference to Sanatorium and Tuberculin Treatment, and the value of Opsonic Indications.

Anæsthetics, General, Local, and Intra-Spinous.

Special papers on "The Value of Intra-Gastric Methods of Investigations of Digestive Disorders," and on "Blood Pressure" have been promised.

Special times will be provided for the subjects of Anæmia, Tuberculosis, and Anæsthetics. Other times will be allotted for papers on other subjects.

II.—SURGERY.

The Secretary (Dr. Syme) reports:—The following subjects have been selected for discussion, and the gentlemen named have already consented to submit papers.

The Surgery of Nerves and of Paralyses.

H. S. Newlands, F.R.C.S. (Adelaide).

B. Kilvington, M.D., M.S. (Melbourne).

The Surgical Diseases of the Bile Passages and Pancreas.

Diagnosis—

H. C. Hinder, M.B. (Sydney).

Technique—

W. Anstey Giles, M.B. (Adelaide).

The Surgery of Non-malignant Disease of the Stomach.

T. Fiaschi, M.D. (Sydney).

J. Ramsay, M.D., M.S. (Launceston).

W. H. Brown, M.R.C.S. (Colac).

Septic Peritonitis: Its Surgery.

W. Chisholm, M.D. (Sydney).

W. B. Duncan, M.D. (Kyneton).

Spinal Anæsthesia.

B. Zwar, M.D. (Melbourne).

III.—OBSTETRICS AND GYNÆCOLOGY.

The Secretary (Dr. Rothwell Adam) reports:—The Sectional Committee have arranged for special discussion of the following subjects:—

1. The Question of the Premature Termination of Pregnancy.

2. The Early Recognition and Treatment of Pelvic Infectious Processes of the Puerperium.

3. Eclampsia.

4. Uterine Fibroids and their Treatment.

5. Dysmenorrhœa.

The following gentlemen have already signified their intention of assisting at the discussions by means of short papers:—Dr. J. A. G. Hamilton (Adelaide), Dr. Lendon (Adelaide), Dr. Byrne (Brisbane), Dr. Harvey (Perth), Dr. Taylor Young (Sydney), Dr. T. G. Wilson (Adelaide).

The Committee of this Section hope that many members of the Congress will take part in the discussions which have been arranged. The subjects selected are chiefly obstetrical, so that members in country practice will be able to give the results of their experience.

IV.—ANATOMY AND PHYSIOLOGY.

The Secretaries (Professors Berry and Osborne) have announced that papers are expected on "The Regeneration of Nerves" and on "The Functions of the Kidney." Dr. Embley will read a paper on "The Influence of Recent Pharmacological Research upon the Administration of General Anæsthetics."

V.—PATHOLOGY AND BACTERIOLOGY.

The Secretaries (Drs. Mollison and Bull) announce that papers will be read by Drs. Smith and Dunhill on "Opsonic Work," and by Dr. Hiller on "The Serum Diagnosis of Syphilis."

Dr. Mollison will introduce the question of the Spirochæta, and the Pathological Diagnosis of Syphilis; Dr. Rothera, the Chemistry of the Anti-bodies; Dr. Chapman, Precipitins; Drs. Mollison, Ellis, and Sewell, Endotheliomata; Dr. Bull, Diphtheroid Bacilli; and Dr. A. Johnson (Adelaide) and Dr. O'Brien (Townsville), Blood Parasites.

VI.—PUBLIC HEALTH AND STATE MEDICINE.

The Secretary (Dr. Norris) reports that the Chief Medical Officers of each of the States and of New Zealand have been asked to co-operate and arrange for papers on Public Health questions. A paper on School

Hygiene is expected from Tasmania. Further information will soon be forthcoming.

VII.—DISEASES OF EYE, EAR AND THROAT.

The Secretary (Dr. J. W. Barrett) reports that the President (Dr. Lockhart Gibson) in place of an address will open a discussion on "Syphilis in Relation to Eye Disease." Dr. Hamilton will open a discussion by a paper on "Direct Laryngoscopy, with reference to Killian's Methods"; Dr. Brady by a paper on "The Treatment of Deformities of the Nasal Septum"; and Dr. Odillo Maher by a paper on the "Prognosis and Treatment of Glaucoma."

VIII.—NEUROLOGY AND PSYCHIATRY.

The Secretary (Dr. Beattie Smith) reports as follows:—The President (Dr. Truby King) will deliver an address on the Prevention of Mental Disease and the Urgent Call for early Systematic Treatment of Mental Disease. Dr. Cleland will read a paper on "Thirty Years' Experience of Insanity in South Australia, being a Review of First Admissions arranged in Three Decades as regards (1) Sex; (2) Age:—Congenital—Puberty—Adult—Climacteric—Senile; (3) Nationality; (4) Occupation; (5) Types:—Excited—Depressed—Enfeebled—Paralytic—Gross Brain Lesion; (6) Causation; (7) Ratio to Population." Dr. Blackwell will read a paper on "Blood Pressure in Insanity," and Dr. McCreery on "The Pathology of Crime," and Dr. Beattie Smith on "The Treatment of Mental Disease in Victoria." Drs. Truby King, Flashman, Mackeddie, and A. W. Campbell will read papers, and demonstrate museum specimens and lantern slides. Dr. Sinclair and Dr. Chisholm Ross will contribute papers, the titles of which have not yet been announced.

A visit to the Receiving House and to the Acute Mental Hospital will be arranged.

IX.—DISEASES OF CHILDREN.

The Secretary (Dr. A. J. Wood) reports that full meetings of the staff of the Children's Hospital, Melbourne, and of the Royal Alexandra Hospital for Children, Sydney, have been held, and it has been determined that reports shall be prepared on the following subjects:—

The Incidence of Infantile Paralysis.

Dr. R. B. Wade to prepare for New South Wales.

Dr. H. Douglas Stephens for Victoria.

The Incidence of Tubercle amongst Children's Hospital cases.

Dr. Jefferis Turner for Queensland.

Dr. Ferguson for Victoria.

The Incidence of Rickets.

Dr. W. H. Litchfield for New South Wales.

Dr. A. J. Wood for Victoria.

The Secretary is endeavouring to obtain reports on these subjects from other States.

It has been determined that general discussions shall take place on:—

The Prevention of Introduction of Infectious Diseases into Children's Hospitals. (A subject asked for by the Sydney Children's Hospital.)

Infant Feeding in Australia.

Papers on Cretinism and on Congenital Dislocation of the Hip have been promised.

X.—NAVAL AND MILITARY MEDICINE AND SURGERY.

Possibly conferences may largely take the place of papers. Further information will be given at a later stage.

XL—DISEASES OF THE SKIN, RADIOLOGY, AND ELECTRO-THERAPEUTICS.

The Secretaries (Drs. Noyes and Clendinnen) report that the proceedings under this section will include:—President's Address by Dr. McMurray.

Vaccines as Therapeutic Agents in Skin Affections.

Framboesia.

Relative Proportions of Various Skin Affections in Australia.—Dr. Noyes.

Exhibits of Rare Affections of the Skin, including cases of Neuro-fibroma (Molluscum Fibrosum), Mycosis Fungoides, Xeroderma Pigmentosa, etc.

General Consideration of Radio-therapy.—Dr. Fox. Tissue Changes in and Treatment of X-ray Dermatitis.—Dr. Clendinnen.

The Use of X-rays after Operation for Malignant Disease.

Treatment of Affections of the Hair and Hair Follicles with X-rays.

Treatment of Tuberculosis by X-rays.

X-rays v. Radium in Cutaneous Carcinoma.

Illustrations of the Value of X-rays in the Diagnosis of Thoracic Affections.—Dr. Stanley Argyle.

Value of Fluoroscopic Examination in Chest Affections.—Dr. Clendinnen.

Treatment of Skin Affections by the X-ray Bath and Radium.—Dr. S. Argyle.

The Use and Abuse of X-rays.—Dr. Clendinnen.

Exhibits including Apparatus, Oscillograph, Methods of Measuring the Quantity and Quality of X-ray Emanations from Tubes, etc.

CONGRESS MUSEUM COMMITTEE.

The Convener (Dr. Murray Morton) reports: The Committee has been active, and its members are anxious to make the Museum a great feature of the Congress. Many inquiries and applications have been received from leading firms.

The Committee is seeking to obtain a maximum of accommodation in the University Buildings. Many members of the University staff have already offered the use of their laboratories.

Mr. H. W. Shillinglaw, at the invitation of the Committee, has kindly consented to act with them, and to enlist the interest of leading pharmaceutical firms in making this branch of the exhibition a success.

It is hoped that the Congress will be the means of bringing together a large number of pathological specimens in private collections.

THE SYPHILIS COMMITTEE.

The Committee dealing with this subject consists of Dr. Bird (convener), and Drs. Adam, J. W. Barrett, Bennie, Mackeddie, Mollison, Noyes, Julian Smith, and J. F. Wilkinson.

Dr. Bird reports that promises of contributions have been received from 15 medical men in Sydney, Adelaide and Melbourne.

Provision will be made for discussion of prevalence, causation, diagnosis, treatment, as well as of the special medical and surgical aspects of the disease.

THE HOSPITALS COMMITTEE.

Dr. Moore (the convener) reports:—The Committee dealing with this subject consists of Dr. A. V. M. Anderson, Cuscaden, Lewers, Long (Bendigo), Moore, D. Murray Morton, Newman (Geelong), R. Scott (Ballarat), J. Ramsay Webb, and Wilson (Creswick). The Committee includes members of various hospital staffs, and others not connected with hospitals. After much correspondence and consultation, the Committee is engaged in drafting resolutions to be submitted to

Congress. The movers and seconders of these resolutions will be designated beforehand; but the Committee trusts that all members of Congress who have given special attention to the subject will take part in the debates. Any suggestions forwarded to Dr. Moore as convener will be carefully considered.

GENERAL NOTICE.

The work of Sections is not confined to subjects specially selected for consideration. Members who desire to contribute papers or exhibits are requested to inform the General Secretary or the Secretary of Section as soon as possible, giving the titles of their contributions.

IMPORTANT NOTICE CONCERNING ACCOMMODATION.

Members are earnestly requested to make early application for accommodation in Melbourne during Congress week, as in October there will be very great pressure on hotels, boarding-houses, etc.

H. C. MAUDSLEY,

8 Collins-street, Melbourne. General Secretary.

OBITUARY.

JAMES BARRETT, L.S.A. (Lond.); M.R.C.S. (Eng.), 1858: M.D., 1873, Melbourne.

We regret to record the death on January 15th of Dr. James Barrett, of Melbourne, in his 74th year. He obtained the qualifications of L.S.A. (Lond.), and M.R.C.S. (Eng.), in 1858, and M.D., in 1873. He had seven sons and three daughters, four of whom have entered the medical profession, viz., Dr. J. W. Barrett, Dr. Edgar Barrett, Dr. Edith Barrett (of Melbourne), and Dr. J. E. Barrett (of Braxholme).

New South Wales Emergency Fund.—The collection for this fund up to date amounts to £213 13s. A full list of subscribers will be published next month.

The Conquest of the Mosquito.—A physician who recently inspected the Panama Canal workings reported, it is alleged, that during his six days' stay in the canal zone he never saw or heard a single mosquito. There are more mosquitoes, he is reported as saying, in any of our city parks than in the canal zone. This is independent testimony to a fact that would have been considered impossible a short time ago by anyone at all conversant with what might be called normal conditions on the Isthmus. If the mosquitoes are absolutely suppressed in that locality after the three months' rainy season, there is practically no place in the tropics outside of irreclaimable swamps or the flooded bottoms of great rivers like the Amazon where a like result cannot be obtained. The habitability of the tropics depends on the suppression of certain diseases, and malaria is one of the chief causes that have rendered them uninhabitable. With malaria conquered, the rest of the task is comparatively easy. The suppression of tropical anemia ought to be a much easier task, and these two diseases are the chief drawbacks that prevent some of the best portions of the world from being centres of wealth and population. Colonel Gorgas' anticipations seem justified if he has eliminated the mosquito.—*Sharland's Medical Journal.*

Consulting and Waiting Rooms, best part Macquarie-street; large ground floor. Attendance and cleaning. £132 per annum. Apply, Stanton & Sons, 109 Pitt-st.

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Exophthalmic Goitre in its relation to Obstetrics and Gynæcology.

Halliday Croom (*Edin. Obst. Trans.* vol. 32, 1906-07). This paper deals with cases occurring in the author's practice, and the bibliography is fully given. Croom arrives at the following conclusions:—1. That exophthalmic goitre is comparatively frequent in women. 2. That the thyroid is enlarged during pregnancy. 3. That exophthalmic goitre and pregnancy are a very rare combination, as shown by the fact that out of 15,000 cases met with in the author's practice, not one was met with in hospital and only 12 in private and consulting practice. 4. That the influence of pregnancy upon exophthalmic goitre is very uncertain and that in the majority of cases it aggravates it. 5. That the effect of exophthalmic goitre on pregnancy is practically nil; that most pregnancies so complicated follow a regular even course; and that of the accidents that occur, the most frequent is hæmorrhage and occasionally abortion. 6. That the relation between pelvic disease and exophthalmic goitre on the reproductive system is in recent cases to cause irregular menstruation, mostly in the direction of menorrhagia, while in very advanced cases it may cause amenorrhœa. From these conclusions it is manifest therefore:—1. That girls suffering from exophthalmic goitre need not be precluded from marrying. 2. That after marriage they need not be precluded from pregnancy. 3. That if pregnancy occurs, there is no reason, except in advanced cases, to interrupt the pregnancy, even in spite of the fact that the children of women with exophthalmic goitre may be expected to develop neuropathic manifestations.

Typhoid Infection of Ovarian Cysts.

Taylor (*Journal of Obstet. and Gynæc. of Brit. Emp.* Nov. 1907). The occurrence of suppuration in the contents of an ovarian cyst is a well recognised though uncommon complication. The sources of infection are:—(1) The Fallopian tube; (2) the intestine, including the vermiform appendix; (3) tapping; (4) infection by the blood-stream in systemic diseases of infective origin. The bacillus coli communis and the pyogenic cocci are the most frequent micro-organisms to infect and cause suppuration in ovarian cysts. Infection with the bacillus typhosus is necessarily rare, since it connotes the occurrence of enteric fever in a patient already possessing an ovarian cyst.

The author gives the details of a case occurring in a woman aged 37, who was admitted into the Chelsea Hospital for Women, eight months after an attack of enteric fever, during her convalescence from which a small extremely mobile abdominal tumor was discovered. It had gradually increased in size until admission, and symptoms of suppuration had been conspicuously absent. From the physical signs a diagnosis of ovarian cystoma was made. On abdominal celiotomy being performed, a large plum-coloured cystic swelling presented, veiled by adherent omentum. The appearance of the cyst suggested pedicle-torsion, which, however, did not exist, and the tumour, which proved to be of the left ovary, was removed entire. On incision a uniform, greenish-yellow, purulent, odourless fluid escaped, to the amount of two and a half pints. Subsequently a bacillus was obtained from this fluid in pure culture, which from a comprehensive study of its morphological, tinctorial, cultural and serum agglutinating properties was proved definitely to be the

bacillus typhosus. Further, the agglutinating power of the patient's serum with typhoid bacilli, proved that the febrile illness from which the patient suffered eight months previously really was enteric fever. The author points out that the bacillus isolated from the cyst-contents had almost lost its vitality, as it was not pathogenic to guinea-pigs, that at first it grew slowly and feebly on agar, had feeble mobility, and was present in such scanty numbers that it could not be obtained in the pus; and it is probable that had the operation been delayed for some time, the cyst-contents would have become sterile. The details of twelve cases in which the bacillus typhosus was found in the contents of suppurating ovarian cysts are given fully. Finally it is pointed out from a bacteriological standpoint, three varieties of post-typhoid suppuration, alike in ovarian cysts and other parts of the body, may occur. (1) A mixed infection, where both pyogenic cocci and B. typhosus are present. (2) A secondary infection, caused by invasion of pyogenic cocci into an organ whose resisting power has been lessened as the result of enteric fever. (3) A pure infection by the B. typhosus alone, of which the author's case is a typical example.

Why the Vermiform Appendix should be removed in Gynæcological Operations.

Pankow (*Münchener med. Wchnschr.* 1907, No. 30, abstracted in *Jour. Obst. and Gyn. of Brit. Emp.*, Oct. 1907). It has been estimated by Kelly and others that the appendix is diseased in 10 per cent. of all women who submit to abdominal celiotomy for myomata, ovarian tumours or other pelvic diseases, but Pankow regards this estimate too low. In 147 cases, microscopical examination detected definite evidence of appendicitis in 82, so that the proportion of appendicular disease was as high as 60 per cent. The author further believes that the frequency of affections of the appendix accounts for many cases of tubal infection, and must be regarded as taking a large share in the origin of adnexal diseases. Appendicitis commonly causes occlusion of the colomic ostium of the tube and consequent sterility, and explains many such cases in which gonorrhœa can be excluded. Pains in the right iliac region attributed to the ovary are in many cases due to inflammation of the appendix. Pankow, therefore, advocates removal of the appendix in all cases of laparotomy, and insists that the necessity for this removal is an additional reason for preferring the abdominal to the vaginal route in all operations for disease of the female pelvic organs.

A case of Acute Purulent Salpingitis in which the signs markedly simulated those of Ruptured Ectopic Pregnancy.

Fairbairn (*Jour. of Obst. and Gyn. of Brit. Emp.*, Dec. 1907). An unmarried girl of 23 was found in a fainting condition in the street and brought by the police to St. Thomas's Hospital. On admission she had regained consciousness and gave the following history. Having previously been regular she had missed her last period, which was three weeks overdue, and on the patient's admission there was possibility of a purely physiological cause. For the six previous days she had had pains in the hypogastrium, and a sanguineous vaginal discharge, while on the night of admission, while walking in the street, she had been seized with severe pain and fainted. When Fairbairn saw her an hour after admission, there was no marked pallor, and the pulse, of 108 per minute, was of fair volume and strength; temperature 99.6°. There was slight abdominal distension, but nothing could be felt on palpation, and there was no dulness on percussion. There was present a sign very distinctive of tubal bleeding, viz., marked abdominal tenderness just above

the pelvic brim. Nothing abnormal could be felt bimanually. The clinical history, coupled with the supra-pubic tenderness, pointing so strongly to the probability of a leaking tube, prompted immediate operation. On opening the abdomen no blood was present, the small intestine was injected, and on passing the hand into the pelvis, a little fluid, apparently pus, was seen. On bringing the left tube into the wound for inspection, pus was seen dropping from the fimbriated end. Its fimbriae were oedematous and deeply injected, and the tube was completely removed, the uterine end being resected. The right tube being in a precisely similar condition, was similarly treated, both ovaries being left. The patient was discharged within three weeks. The tubes, on examination, were free of adhesions, soft and pliable, no thickening of the walls; the mucosa slightly swollen and oedematous. Both contained creamy pus, which on examination showed pus cells, no micro-organisms, and the cultures were sterile. Commenting on this most instructive case, Fairbairn points out that so many of the cardinal symptoms of ruptured ectopic gestation were present; the patient having run the risk of impregnation, was three weeks over her time for menstruation, and had had attacks of abdominal pain with metrorrhagia, culminating in a fainting attack. The one thing missing was the one least often elicited, the passage of a decidua. When first brought to hospital by the police, shortly after the fainting attack, her appearance was much more like that of a ruptured ectopic gestation than when Fairbairn saw her later. By that time she had so far recovered it was evident she was not still bleeding. Considerable reliance was placed on the supra-pubic tenderness, and the safest course was to explore. Despite the negative bacteriological examination, the most likely explanation of the case is that an endometritis of mixed gonorrhoeal and pyogenic origin had been the starting point of the salpingitis, and that the metrorrhagia was due to the endometritis. The attacks of abdominal pain were caused by the spread of infection to the fimbriated end of the tube, and the acute attack of pain which caused fainting was accounted for by the dripping of pus into the peritoneal cavity. Finally, the author points out that the infectivity of the pus was of a very low order, as shown by the trifling peritoneal reaction and by the fact that cultures taken from the pus in the tube proved sterile.

Puerperal Infection.

Little (*Montreal Medical Journal*, vol. 36, No. 6, abstracted in *Journ. of Obst. and Gyn. of Brit. Emp.*, Nov. 1907). Stress is laid on the following points based on the author's own practice in the Montreal Maternity: 1. Prophylaxis should begin early in pregnancy. Maintenance of the general health cannot be over-estimated, as the better the health of a parturient woman, the less the likelihood of infection, and the less likely is it to be serious should infection occur. Profuse vaginal discharges should receive local treatment as early as possible. Copious douching with normal saline or boric solution, combined with rest, suffices in most. If not, swabbing with stronger antiseptic solutions, under anaesthesia, will almost certainly cure, and warts and erosions should be treated at the same time. The permanganate of potash and oxalic acid is spoken highly of as a method of disinfection. 2. Methods employed in the conduct of aseptic labour. As preliminaries, a full bath, emptying the rectum by enema, and shaving and disinfection of the vulva are advised. Infection from the rectum is excluded in all cases where operative interference is necessary by a

piece of protective rubber tissue, moistened by chloroform and applied over the buttocks and perineum. In ordinary cases the necessary information as to the course of labour can be obtained by abdominal palpation and invagination of the perineum. After little practice rectal examination with sterilised rubber gloves dispenses with the necessity for examination per vaginam. The correct management of the third stage is emphasised. Retention of membranes is not nearly so dangerous as exploring the uterus to remove them except when they can be felt hanging out of the cervix, when the ascent of organisms from the vagina to the uterus is undoubtedly favoured. Stress is placed on the importance of catheterising the bladder after the completion of the third stage. After every labour there are cracks and abrasions about the vestibule, which will heal in a few hours if left alone. If catheterisation is necessary later, these cracks and abrasions will be opened afresh, and will remain a possible site of infection. In addition, nothing hinders involution of the uterus so much as distension of the bladder. The importance of a firm, well-involved uterus, early in the puerperium, in the prevention of hæmorrhage and sepsis, cannot be over-estimated. 3. The recognition of the varieties of sepsis. Exact diagnosis can only be attained by bacteriological examination of the lochia in utero and the blood. Williams' method of obtaining the former is recommended. The macroscopic appearance of the lochia is suggestive of the nature of the infection; when stringy and gelatinous, greenish-yellow and blood-streaked gonorrhoeal infection is probable, whereas in streptococcal infections the breaking down of the red blood corpuscles gives the lochia a diffuse cherry red appearance; in anaerobic infections the lochia are usually of a dirty dark brown colour. No importance can be attached to the smell. 4. The treatment of intra-uterine infections. The author condemns the use of the curette, which he regards as harmful in streptococcal and valueless in gonococcal infections. Strong antiseptic solutions cannot penetrate sufficiently deeply to be of any use, hence he recommends salt-solution or mild antiseptic douches only locally. In severe streptococcal infections he firmly believes in the efficacy of fluids; as rectal salines, submammary salines, and by giving the patient large amounts of fluids (10 to 12 litres in the 24 hours) to drink. Great expectations may be raised in the future, when vaccines will be rapidly obtained and employed as suggested by Wright. The varying characteristics of the organisms found have, up to the present, rendered the use of anti-streptococcus serum of no value. 5. The treatment of incomplete abortion. The line of treatment to be adopted is the same. Removal of the retained products by the finger rather than by the curette, and the provision of free drainage from the uterus by wide dilatation of the cervix, rather than by gauze plugging, are sufficient in most cases. Severely septic cases are to be treated on the lines detailed.

Incision of the Anterior Uterine Wall (Anterior Colpo-hysterotomy) as a treatment of Chronic Inversion of the Uterus.

Peterson (*Surgery, Gynecology and Obstetrics*, Aug. 1907). The various methods of operating by the vaginal and abdominal route for the relief of this condition, are described and tabulated cases by the different procedures. The author strongly favours Spinelli's method (complete anterior colpo-hysterotomy), and gives a table of nine cases so treated, including two of his own. The technique is as follows:—1. Transverse incision in the anterior cul-de-sac. 2. The anterior lip

of the cervical ring is grasped by forceps, and using the finger as a guide, the anterior uterine wall is split from the os externum to fundus. 3. The reinversion is accomplished by pulling outward with the index fingers and pushing inward with the two thumbs. 4. Removal of a wedge from each uterine wall when there is ectropion. 5. Suture of the anterior uterine wall with catgut, in one or two layers. 6. Replacement of the uterus within the pelvic cavity. 7. Drainage of the anterior cul-de-sac. The various steps of the operation are illustrated by excellent diagrams, and the bibliography of the subject fully given.

Styptol in Uterine Hæmorrhage.

Lockyer (*Folia Therapeutica*, July, 1907), after summarising 30 cases treated by this drug, the writer comes to the following conclusions. Styptol is of most value in uterine inflammatory lesions (i.e., metritis, endometritis, subinvolution), in which it has a beneficial effect in checking the hæmorrhage. It is of service in the menorrhagia of young girls, where no abnormality can be found, and in the threatened abortion of early gestation. From the sedative nature of the drug it relieves dysmenorrhœa, but a styptol habit may be induced. The value of the drug as a combined uterine hæmostatic and sedative is emphasized. Styptol was given in single tablets (Knoll and Co.) thrice daily, though it is sometimes necessary to give as many as six to twelve daily.

OPHTHALMOLOGY.

Glaucoma Iridectomies.

Berry (*Edinburgh Medical Journal*, November, 1907) marks the jubilee of Von Græfe's introduction of the operation of iridectomy for glaucoma by contributing a paper, wherein he refers to the progress we have made in our knowledge of the subject since Von Græfe's time in the light of longer experience. The contribution is a valuable one coming from a man of such sound judgment and great experience. Myotics were unknown to Von Græfe, but notwithstanding their extensive use and the strong claims made for them, Berry is an uncompromising advocate for iridectomy in every case. He only uses myotics as after treatment on the principle that they can do no harm, and may possibly be of some benefit. As substitutes for iridectomy he will have none of them. He summarises his paper as follows:—(a) Statistics of the result of glaucoma operations are apt to be misleading. Even the question as to whether a correct diagnosis between simple glaucoma and optic atrophy has been made in many cases included in such statistics is open to doubt. (b) Iridectomy is capable of permanently arresting glaucoma in all stages and in whatever form it makes its appearance (hæmorrhagic glaucoma is excepted). (c) The longer the disease has lasted, irrespective altogether of the destruction which it has caused, the less likely is iridectomy to succeed. (d) Iridectomy should in all cases be done as soon as there is evidence of the disease being confirmed. For establishing the diagnosis between glaucoma simplex and optic atrophy, extremely difficult in doubtful cases, he places reliance on Bjerrum's test. (e) It (iridectomy) should also always be tried as a first measure however far the disease has advanced. (f) The operation should be followed up by myotics, and this treatment should be continued indefinitely. (g) In operating, the incision should be made with a keratome and placed as peripherally as possible without leading to difficulties. This situation will vary in different cases, and no hard and fast line can be fixed. (h) The amount of iris removed need not be as great as originally recommended

by Von Græfe. (i) Cases in which iridectomy, followed by myotics, fails, should be treated by the formation of a cystoid cicatrix, the section into the eye being made so as to include the tissues behind the root of the iris. He does not believe in the practice of some surgeons, of trying to get a cystoid cicatrix in all cases, but only in cases which have not been relieved by the first operation.

Magnetic and Non-Magnetic Properties of Iron Alloys.

The importance of this question to the oculist is referred to by Mortimer Franks in the *Ophthalmic Record* for November, 1907, and Simeon Snell has also directed attention to the same. During the last few years great changes have been made in the composition of steel. The effect of the various alloys, as well as the percentage of carbon, and whether annealed or unannealed on the physical properties of steel, particularly its magnetic property, is of practical importance to the oculist from the point of view of the practicability or otherwise of removing particles of these alloys from the eye by means of the magnet. Some of these alloys are non-magnetic or nearly so, whilst others are more magnetic than the purest commercial iron. The commonest alloys in high grade iron are those of manganese and nickel. According to Franks, when manganese in an alloy makes 13 per cent. the magnetic property is destroyed. Nickel steel is extremely magnetic. Even an alloy with the high proportion of 15 to 25 per cent. is fairly magnetic, but if 5 per cent. of manganese be added it becomes non-magnetic. A 5 per cent. manganese steel alone is fairly magnetic, but is not commercially used, being brittle and worthless. A 7 or 8 per cent. manganese steel is very tough and strong, and is fairly magnetic, but add 2½ per cent. of nickel and it becomes non-magnetic, though a 2½ per cent. nickel steel is almost as magnetic in low fields as pure iron. Excess of carbon in high manganese steels softens them and increases their magnetic susceptibility. With less carbon and the same percentage of manganese the steel is practically non-magnetic. Silicon steel and aluminium steel are more magnetic than the purest commercial iron. Chromium steel and Tungsten steel are non-magnetic.

On Atoxyl in Ocular Syphilis.

Darier (*Ophthalmoscope*, July, 1907) relates two cases. The first, a severe condylomatous iritis, was practically cured in five weeks by the intramuscular and subconjunctival injection of atoxyl. The second case was one of severe irido-choroiditis, which was greatly improved by three intramuscular and seven subconjunctival injections of atoxyl, though previous treatment, consisting of 27 intravenous and ten subconjunctival injections of salicylarsenite of mercury, had effected a very slight improvement. He refers to the experience of others with atoxyl. Salmon has treated various manifestations of syphilis with the most encouraging results. It presents the following advantages over mercury and iodide. It is non-toxic, both when applied locally and administered internally; the results are constant in all stages of the disease, primary, secondary, and tertiary. It acts very rapidly, and the lesions cicatrize rapidly. Salmon's 27 cases, with Lassar's 25, Hallopeau's 72, Hoffman's 11, Balzer's 10, and Darier's 2, make the respectable total of 145 cases, almost all of which were successfully treated with atoxyl. Only two cases showed intolerance manifested by abdominal pains, nausea and low vomiting. Darier considers that in this drug we have a third antisyphilitic worthy to be ranked alongside mercury and iodide. It is slightly

cumulative in the system. The dose (by injection) is from 0.50 to 1 gramme (7.715 to 15.43 grains). Atoxyl is an organic compound which contains 37.67 of arsenic. It is soluble in about 1 in 6 of water.

Dionin in Glaucoma.

Senn (*Wochenschrift für Therapie und Hygiene des Auges*) sounds a warning against the unrestrained use of dionin in glaucoma. He is convinced that in many cases it does positive harm, and in one particular case in which he experimented it was found that if dionin were instilled into an eye when fully under the influence of eserine, the pupil widened and the tension rose.

NEUROLOGY.

Surgical Treatment of Tumours of the Membranes of the Spinal Cord.

In September of last year Professor Bruns presented a report on the above subject to the Congress of German Nervous Specialists held at Dresden. The following is a short account of his paper, which is printed in the *Deut. Zeitschrift für Nervenheilk.*, Bd. 33, Heft. 6. Incidentally he remarks that intra-medullary tumours of the cord do not lend themselves to surgical treatment, but cases have occurred in which a surgeon has started with the idea that the tumour was extra-medullary, and upon finding it was intra-medullary has operated. In a few cases of this kind some improvement has been obtained—chiefly in circumscribed tubercular nodules. These extra-medullary tumours must, of course, be attacked if they cause unbearable pain. Of the membrane tumours proper the intra-dural are of greatest practical importance. They are more frequent than the extra-dural tumours, and the majority of them are not too extensive; they are usually primary and benign, whereas the extra-dural are more often secondary and malignant, as well as very extensive. Under these circumstances Bruns scarcely considers the extra-dural forms. In the intra-dural space one finds all kinds of tumours, but those of practical interest are the fibromata, the fibro-sarcomata, sarcomata, and psammomata. In the intra-dural space of the spinal canal these tumours—even the sarcomata—are usually benign and show little tendency to metastases. None of the forms attain any great size, the largest usually being the size of a pigeon's egg. The tumours mostly lie dorso-laterally as regards the cord, very seldom in front of it. They are mostly loosely connected with the arachnoid or with some of the nerve roots, though occasionally they grow from the interstitial tissue of the roots, and then are more closely bound to them. A few of the tumours are attached by a broad base to the inner surface of the dura, and can only be removed by also removing a piece of the latter. Very seldom does a tumour grow through the pia into the cord, but sometimes a gumma or a diffuse sarcoma arises in the pia and then grows in. It is a point of great interest that in later life (after 40 years) the tumours are mostly benign and slow growing, e.g., psammomata and fibromata. Another point is that statistics show that tumours in the dorsal region are very likely to be simple, whereas this cannot be so definitely said of those of the cauda equina. In most cases only compression, not destruction, of the cord takes place, even in long-standing cases; this means that one can usually look for recovery of function once the cause has been removed. The same applies to nerve roots passing over the tumour, but nerve roots are more likely to be damaged if pressed upon at the point of their emergence from the cord. Intra-dural tumours very seldom exert any deleterious effect on the bony walls of the canal.

Some tumours lying immediately outside the canal force their way through an inter-vertebral foramen into the canal, and form what are termed hour-glass tumours. As regards the symptoms, one usually finds one segment involved, then follows paresis on one side and anaesthesia on the other, and then later, paraplegia. Earlier or later tenderness over the spines usually develops. The root symptoms may alone be present for years, and then the other symptoms gradually supervene. These root symptoms are pain, hyperaesthesia or anaesthesia, and, if a number of anterior roots are involved, atrophic muscular paralysis, which does not always give the reaction of degeneration. Many cases occur which give none of the classical symptoms, or these symptoms remit at times; even pain may be altogether absent. In other cases the pain may occur at varying levels and give little help in localisation. If the tumour be situated in the middle line it may lead at once to paraplegia. Bruns asserts that in these atypical cases one must carefully consider the question of tumour, and even in doubtful cases will not deny to the patient the only way to recovery, viz., operation, especially if the case is clearly progressive, or where much suffering is caused. The writer enters into a consideration of the differential diagnosis as regards caries, and tumours—carcinoma and sarcoma—of the vertebrae. Distinguishing an intra-medullary tumour sometimes presents difficulties, but in these cases, besides the root symptoms, there are always symptoms dependent on interference with conduction in the cord itself present. Further, intra-medullary tumours, especially sarcomata, usually spread rapidly in the long axis of the cord, causing wide-spread symptoms, whereas the membrane tumours do not spread nearly so extensively nor so rapidly. Bruns has experienced great difficulty in distinguishing intra- from extra-dural tumours, but he says that practically it is not of great importance. Hour-glass tumours are always extra-dural. Chronic and subacute myelitis offer difficulties, but in such cases one is justified in making an exploratory incision. Pachymeningitis cervicalis hypertrophica causes extensive double-sided root symptoms, and can usually be excluded. It is a very rare disease. The occurrence of circumscribed gummatous infiltration of the meninges makes it advisable to adopt a mercury treatment in many cases before deciding to operate. In syringomyelia the symptoms are usually very extensive as opposed to the small extent of the effects produced by an intra-dural tumour. Pronounced trophic disturbances of the skin and bones, a marked bending of the spinal column, indicate a syringomyelia, as do also long-continued and marked remissions. In multiple sclerosis one usually finds transitory symptoms affecting other parts of the spinal cord, viz., temporary paresis and anaesthesia; the brain symptoms, especially the eye symptoms, should suffice to establish the diagnosis. A most important disease recently recognised is meningitis serosa spinalis circumscripta. This causes a localised compression of the spinal cord with symptoms often indistinguishable from those caused by a tumour. Operation is necessary, and has led to excellent results in several cases. The pressure is due to a local simple cyst which merely needs puncturing.

Motor Centres in the Human Brain.

Lloyd (*Jour. Amer. Med. Ass.*, vol. xlvii) has had an opportunity of electrically stimulating a human brain. He used the unipolar method, and his results coincide with those of Grunbaum and Sherrington in the apex, i.e., he found the motor centres lying entirely in front of the sulcus centralis. No reaction was obtained behind this fissure.

MEDICAL MISCELLANY.

THE Paris Morgue, which has so long had a gruesome interest for the tourist and the reader of French fiction, is, it seems, now doomed. After some 50 years its notorious existence is to be ended. The very large æsthetic element of the Paris population (states the daily *Times*) exults in its approaching demolition. The doctors of Paris have complained that it is outgrown, and that there is needed a more modern repository and in a different quarter. There is, of course, needed in every city a place where the unknown victims of unnatural death, of accident or of crime can be viewed, together with their belongings, for possible identification. Considering how large a quota of these victims were contributed by the Seine, the gruesome old place by its bank had the merit of convenience. Those Parisians of æsthetic temperament rejoice that it will now be possible to see the rear of Notre Dame Cathedral (perhaps the most picturesque of all its aspects) without any other immediate surroundings than those of foliage. But the artists are admonishing the municipality not to put anything in its place; "to do that would make us regret the morgue."

Chimpanzees are now quoted at \$150 each, and they are very scarce even at that price. From the point of view of the scientific experimenter this is regrettable. Only thus can we ascertain in a measurably satisfactory way how certain antitoxins and bacillary emulsions affect the human subject. Professor Metchnikoff is particularly worried. This always brightly original man is on the track of the germ which he believes causes appendicitis, and he needs the chimpanzee for his investigations. But the creature comes high even for the generously endowed Pasteur Institute.

The Imperial Academy of Science at Vienna is reported as having succeeded in greatly cheapening the cost of production of radium. About 3 grams of the finished product were obtained at a cost of \$10,000 from ten tons of uranium and pitchblende given to the Academy by the Government from its mines in Bohemia.

Dr. Vaillant, of the Lariboisière Hospital in Paris, recently, in a paper read before the Academy of Sciences, stated that the difference between radiographs of the trunk made before and after death were sufficiently great to enable this method to be used as a means of determining whether or not life was extinct.

The Prussian Minister of Justice is leading a movement among the alumni of the universities to check drinking on the part of students, especially by abolishing compulsory drinking on the part of members of the Student Corps. The Government also has been petitioned to set apart cars on the Prussian railways Saturday and Sunday nights for intoxicated persons, or if that be deemed inexpedient, to reserve cars for abstainers, with train hands at the doors when trains stop, to exclude intoxicated people, and thus afford abstainers quiet travelling.

At a session of the Central Health Bureau in Teheran, it was stated that the mortality from smallpox in Persia is in the neighbourhood of 75,000 annually. In spite of this fact the institute for the preparation of vaccine material, which was authorised in 1905, has not yet been started, though the necessary funds have been provided.

The Finnish Legislature, which has 19 women and 80 social democrats amongst its 200 members, has just passed a drastic Act for the total prohibition of spirits, wine, beer and alcohol, which may be kept only for medical and technical purposes, and for the use of Russian troops. Even the use of wine for the communion service is forbidden. No one may keep alcoholic drinks in his house unless he can prove that they were in his possession before the Act was passed. The police have full rights to search, and the penalties vary from \$20 fine to penal servitude for three years. There is no provision for loss of capital in breweries, distilleries, or private houses. There is said to be no chance for the law to become operative, however, as the Czar's veto is regarded as certain.

On the fifteenth of the eighth moon there was a burning of opium pipes on the city hill of Hangchow. Several months ago public-spirited citizens formed two societies to aid in suppressing opium smoking. They offered to buy pipes if given up before the seventh moon; offered medicine and the services of physicians to those breaking off the habit; opened an industrial school to teach trades to waiters in opium dens; offered to lend four dollars to those who wanted capital for trade. A large number of pipes and other utensils used in smoking were brought in and redeemed, so a day was set for the public burning of these trophies of reform, and a large crowd assembled to witness the sight. First an address was made to the assembly, then a piece of music was performed on an organ, then the fire was applied to the pile of 5000 opium pipes and other utensils, and the services were closed with another address.

The Paris correspondent of the *Lancet* relates in the issue of September 23rd the case of a man who had been for 17 years in the service of a railway company, but was discharged on the ground that he had tuberculosis, and was not therefore fit to continue his work. He thereupon sued the company, and on the basis of the testimony of an expert employed by the Court to ascertain the facts, he was awarded damages of 5000 francs. It was held that his unfitness for active and regular work had not been proven, because the progress of the disease from which he suffered was slow, and he was strong enough to follow his employment.

As a result of the propaganda of a society in Copenhagen with the title, "L'Association Internationale pour la Destruction Rationnelle des Rats," the Danish legislature has passed a law providing for a systematic effort at the extermination of the rat, which is now in active operation. Under the Act the State undertakes to spend \$8000 annually for three years, and compels the county and borough councils to spend 80 cents a year for each 100 inhabitants. The society has agreed to spend at least \$2500 each year for the purpose, and in return for this expenditure it is entrusted with the entire working of the Act. Statistics gathered by a civil engineer named Zuschlag, who founded the society, showed that the depredations of the rodents in Denmark alone were responsible for \$2,000,000 of preventable damage, without considering the possible transmission of disease by their intervention.

The directors of the Rockefeller Institute for Medical Research have received from Mr. John D. Rockefeller a further sum of \$2,600,000 to serve as an endowment fund for the maintenance of the Institute. Mr. Rockefeller's previous gifts had amounted to \$1,200,000.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Birthday Honours—King Edward's Hospital Fund—The Health of the Army—Miss Florence Nightingale—The Hospital Sunday Fund—The Royal Society Medals.

THE Birthday Honour list, which appeared on 9th November, was neither large nor remarkable, except for the fact that no new peerages were announced. Among the members of the medical profession the following are singled out for distinction:—Professor Thomas Clifford Allbutt, of Cambridge, is made a Knight Commander of the Bath; Dr. George Thomas Beatson, of Glasgow, who has done important work in connection with the Royal Army Medical Corps, is promoted from the Companionship of the Bath, which he previously held, to be a Knight Commander; Dr. Allchin, of the Westminster Hospital, and Dr. Wm. John Thomson, of Dublin, are created Knights; Colonel Francis Lawrence Stephenson, M.B., of the Royal Army Medical Corps, is nominated a Companion of the Bath; Dr. Robt. Millar Coulter, of Canada, and Dr. Arnold Theiler, of the Transvaal, are made Companions of the Order of St. Michael and St. George; Sir Charles Tupper, formerly High Commissioner for Canada and Prime Minister of the Dominion, who is a Doctor of Medicine of Edinburgh, is invested with the dignity of a Privy Councillor.

A meeting of the General Council of King Edward's Hospital Fund, for the purpose of awarding grants to the hospitals for the present year, was held on December 16th at Marlborough House, his Royal Highness the Prince of Wales being in the chair. Lord Rothschild reported that the amount received by the fund to December 12th, after payment of expenses, was £147,263 2s 7d. Sir Henry Burdett stated that although this year had been a very bad year for the League of Mercy, owing to the general depression and the difficulty of raising small sums even from so many people, yet he was pleased to say the actual results were better than in any previous year. They would, therefore, be able to give at least the same grant to the King's Fund this year as last year, namely, £18,000. Sir William Church then read the following report from the Hospitals Distribution Committee:—1. The committee have the pleasure to report that the sum of £120,000 is available for distribution this year amongst the London hospitals, as against £110,000 in 1906. 2. The number of hospitals applying for grants is 99, as against 105 last year. This year, however, for the first time the country branches of the Hospital for Consumption and the Mount Vernon Hospital for Consumption at Frimley and Northwood respectively have been visited on behalf of the fund. 3. Among the hospitals which have fallen out is the City Orthopaedic Hospital, which has ceased to exist as a separate institution, and has, we understand, amalgamated with the Royal National Orthopaedic Hospital. The sum of £500, representing the two grants of £250 made in the years 1905 and 1906, will consequently be paid over to the Royal National Orthopaedic Hospital when the amalgamation is complete. 4. In regard to the five throat, nose, and ear hospitals, the committee are informed that the negotiations for amalgamation are still proceeding. Towards this object the committee have, in addition to the considerable sums already promised by the fund, set aside a further sum of £2000 instead of making separate grants to each hospital.

The committee, however, cannot recommend that this sum, together with the £1000 set on one side for the same purpose last year, should be held over indefinitely, nor would they wish it to be understood that either of the amounts will be paid to the throat and ear hospitals if the amalgamation is not carried out. 5. The sum of £8000 voted towards the removal of King's College Hospital to South London increases the total amount contributed by the fund to this object to £22,000. 6. The committee last year referred to the two exceptional grants of £5000 to the Hampstead General Hospital and £4500 to the Mount Vernon Hospital for Consumption, and stated that as those amounts were in the nature of advances they would be taken into consideration in the future. In the case of the Hampstead General Hospital the committee are informed that the fund has made a liberal offer to this hospital provided the amalgamation with the North-West London Hospital is carried out. This offer, which includes an annual grant of £1500 for five years, will come into effect from the date of the completion of the amalgamation, and in view of this and the large sums paid to the hospital last year the committee have not felt justified in making any further grant. 7. The attention of the committee was called to the urgent necessity for rebuilding the out-patient department at Guy's Hospital at a cost of about £20,000, of which £10,000 has already been received. In view of the needs of the neighbourhood and of the fact that the work if set in hand this winter might be carried out more advantageously, the committee recommend a grant of £10,000 for this purpose. This, with £5000 for the general purposes of the hospital, makes a much larger grant than Guy's Hospital would be ordinarily entitled to, and should the Council sanction the proposal the committee will take this exceptional grant into consideration in the future. 8. The attention of the committee has been called to the inconvenience experienced in the preparation of the statistical reports, owing to the late date at which the annual reports of several of the hospitals are received. The committee are of opinion that the reports of all hospitals applying for grants from the fund should be sent in not later than April 15th in each year. 9. The reports of the visitors have, as heretofore, received the careful consideration of the committee and have been of the utmost value. 10. In addition to their published remarks, the committee have followed and extended their usual practice in recommending that various suggestions, including many arising from the visitors' reports, should be made privately to the hospitals. Sir Savile Crossley presented the list of awards and drew attention to the fact that the absence of a grant did not necessarily imply dissatisfaction. The adoption of the reports and awards was moved by the Prince of Wales and seconded by Mr. John Burns. The President then outlined the arrangements for the coming year and nominated members for the various committees. A vote of thanks to his Royal Highness, the President, was moved by the Lord Mayor, and seconded by Lord Revelstoke.

The report of the Army Medical Department for 1906 was issued on November 28th. From this report it appears, according to the synopsis furnished by the *Morning Post*, that the admissions to hospital have fallen steadily during the past 16 years from nearly 1060 per 1000 of strength to less than 600. In the group of general diseases there was in 1906 a decrease in admissions of about 66 per cent. at home and about 30 per cent. in India. Tubercle of the lung showed in 1890 nearly four admissions per 1000 of strength in the

United Kingdom and 3.26 per 1000 in India. These figures have fallen in 1906 to less than 3 per 1000 in the former case and somewhat under two in the latter. Diseases of the nervous system accounted for 9.3 admissions per 1000 in the army serving at home in the year 1890 and for 10.3 in the army of India in the same year. In 1906 this group of diseases showed an admission rate of only 6.25 and 9.88 in the two armies respectively. The foregoing and other facts show that the improvement in the general health of the army since 1890 cannot be attributed to a decrease in the incidence of one particular disease, but to a general improvement in all directions. It is probable that one great cause of this is the increase of temperance in the army during late years, but the greater proportion of the improvement may fairly be attributed to improved sanitation. It is of interest to compare the health of the British Army with that of foreign armies. Taking all diseases, it seems that the United States Army heads the list with the enormous admission rate of 1250 per 1000. After this come the French, German, and Austrian armies, all above 600. Fifth in the list is the British Army serving in the United Kingdom, and lowest of all, the Russian Army with the low figure of 324 admissions per 1000. Cardiac affections are much more prevalent in the army in the United Kingdom than in any other army. The high rate in the British Army is usually attributed to the poor condition of the recruit on enlistment, and the severity of the training through which he has, till lately, been put. The report shows that the effect of foreign service is to increase all the ratios except that representing men discharged from the service. The total loss due to death is about trebled by foreign service, the increase being due mostly to the more acute forms of disease, e.g., enteric fever in India, Malta fever in Malta, malarial fevers in Mauritius, Straits Settlements, and West Africa. The death rate at home is 2.92, and abroad 8.30—the loss due to discharge as invalids is not increased by foreign service. This appears to be due to two main causes—the first that the men who go abroad are carefully inspected before selection for foreign service; and second, that a considerable number of men are sent home from abroad for change who are able still to remain in the service, but who would be lost to it if they had not received the advantage of an early change of climate. South Africa takes the first place for healthiness of all groups abroad. The death rate of India is far higher than that of any other group, and makes the total wastage, by death and discharge, equivalent to about 20 per 1000, the highest of all the four foreign groups.

The following announcement appeared in the *London Gazette* of November 29th:—"The King has been graciously pleased to make the following appointment to the Order of Merit—Miss Florence Nightingale." Miss Nightingale, who celebrated her eighty-seventh birthday in May last, and whose health has recently caused some anxiety, was the founder and organiser of the nursing service at Scutari during the Crimean War. The Order of Merit was founded by the King in 1902, and was first announced in the Coronation Honours list. The King himself is the Sovereign of the Order, and the first recipients of the honour were twelve men who had gained distinction in war, science, letters and art. Miss Nightingale is the first woman upon whom the honour has been conferred. The badge of the Order, to be worn by its members, consists of a cross of red and blue enamel of eight points, having "For Merit" in gold letters within a laurel wreath on a blue enamel centre. The reverse of the badge shows

the King's royal and Imperial cipher in gold. The following is a list of members of the Order:—Miss Florence Nightingale, Earl Roberts, Viscount Wolseley, Viscount Kitchener, Lord Rayleigh, Lord Kelvin, Lord Lister, Right Hon. John Morley, Sir E. H. Seymour, Sir William Huggins, Sir George S. White, Sir John A. Fisher, Sir L. Alma-Tadema, George Meredith, William Holman Hunt, Earl Cromer, Marquis Oyama, Marquis Yamagata, Admiral Togo, Sir Joseph D. Hooker.

A meeting of the Council of the Metropolitan Hospital Sunday Fund was held at the Mansion House, under the presidency of the Lord Mayor, on November 29th. The report of the Council for the year ended October 31st was presented, and it was stated therein that the year's collection amounted to £78,651 10s 9d. The collections in the various places of worship totalled £42,786, or less by £1848 than the sum contributed in the previous year, St. Paul's Cathedral heading the list with £4687; St. Michael, Chester Square, coming next with £1262. Attention was drawn to the large number of country patients treated in the metropolitan hospitals, estimated at 25 per cent., and the cost of these is charged in the accounts on which the Committee of Distribution base their awards. The sum of £30,000 has been received from the executors of the late Mr. George Herring, and on Tuesday, June 16th, a bust of this great benefactor to the fund will be unveiled by the Lord Mayor at the Mansion House. The Council has received £22,590 from the executors of the late Mr. W. Vokins, and it has been designated "The Vokins Bequest" under the terms of the will. The second instalment of £3000 has been received from the executors of the late Mr. Herbert Lloyd on account of a legacy of £10,000. On the motion of Archdeacon Beavan, seconded by the Rev. W. Hardy Harwood, the report of the council was unanimously adopted. At a deferred meeting, held at the Mansion House on December 17th, it was agreed that June 21st should be fixed as the date for the 1908 Hospital Sunday.

The following is a list of those to whom the Royal Society has this year, with the King's approval, awarded medals:—Copley Medal to Professor A. A. Michelson, of Chicago, for his investigations in optics. Royal Medal to Dr. Ernest William Hobson, for his investigations in mathematics. Royal Medal to Dr. Ramsay H. Traquair, for his discoveries relating to fossil fishes. Davy Medal to Professor Edward W. Morley, of Cleveland, Ohio, for his contributions to physics and chemistry, and especially for his determinations of the relative atomic weights of hydrogen and oxygen. Buchanan Medal to Mr. W. H. Power, C.B., for his services to sanitary science. Hughes Medal to Professor Ernest H. Griffiths, for his contributions to exact physical measurement. Sylvester Medal to Professor Wilhelm Wirtinger, of Vienna, for his contributions to the general theory of functions.

At a meeting of the Hobart Municipal Council a letter was received from the Chief Health Officer, recommending, in pursuance of the powers vested in him by section 43 of the Public Health Act, "That the local authorities of Hobart, New Town, Glenorchy, Queenborough and Clarence combine in providing and maintaining a common hospital for the reception and treatment of persons suffering from the diseases known as scarlet fever and diphtheria, and that such local authorities shall for that purpose join in performing the necessary works under section 43 of the Public Health Act." It was agreed that the conference be held at an early date, and that it be convened by the Mayor of Hobart.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of January, 1908:—The deaths in the metropolitan municipalities (Sydney and suburbs) numbered 504. This figure includes the deaths of all patients in the various hospitals for the insane throughout New South Wales who resided in the metropolis before being admitted into hospital. It also includes the deaths of metropolitan residents who died in other institutions outside the metropolis, with the exception only of such deaths as may have occurred in benevolent asylums. It excludes deaths of persons who died in metropolitan hospitals, but were not residents of the metropolis. The number of deaths is slightly above the average number in January during the past five years, and is equal to a death-rate of 10.63 per 1000 of the estimated mean population of the year. When corrected by the inclusion of the metropolitan proportion of the deaths in benevolent asylums throughout New South Wales the death-rate becomes 11.14 per 1000. Diarrhoeal diseases were responsible for 86 deaths. This total is less than the quinquennial average for January (96). Infectious diseases other than diarrhoea caused 25 deaths. Among these diseases typhoid was very prominent as a cause of death. No less than 18 deaths were attributed to this disorder, which is a greater mortality than has been caused by it in any January during the past ten years. Other deaths under this heading were attributed to the following causes:—Scarlet fever, 1; influenza, 2; whooping-cough, 1; diphtheria, 1; erysipelas, 1; puerperal fever, 1. Respiratory diseases led to 22 deaths. Phthisis caused about an average mortality (37 deaths). Cancer, with 42 deaths, Bright's disease with 29, and diseases of the heart and blood-vessels with 73 were all more fatal than usual in January. Deaths of children under 1 year of age numbered 120. This is equal to an infantile mortality rate of 99 per 1000 births, which is, with one exception, the lowest recorded in January for 10 years. The chief causes of infantile mortality were—enteritis 60 deaths, prematurity 15, developmental diseases 24, respiratory diseases 5. Three hundred and three notifications of attacks of infectious disease were received during the month; 103 of these were due to scarlet fever, 59 to diphtheria, 138 to typhoid fever, and 3 to bubonic plague. Typhoid fever was more prevalent

than in any previous January since notification came into force—a circumstance due in part to an outbreak which occurred in Leichhardt in connection with a dairy. Within the city of Sydney 9 cases of pulmonary consumption were notified under the municipal by-laws, 7 dwellings were disinfected after the occurrence in them of deaths from consumption, and 4 dwellings after the removal from them of living consumptives.

Consumptive Passengers.—The Board of Health has approved of the issue of a circular letter to the various shipping companies in Sydney, asking for information as to the precautions taken in respect of the carriage of "consumptives" in an advanced stage of the disease. The board recognises that the whole subject of the use by consumptive persons of ordinary travelling facilities, and especially of the sleeping accommodation on passenger steamers, is an exceedingly difficult one to deal with, but it is necessary to minimise the danger of infection as far as possible, and the board hopes to devise means of doing this.

Bubonic Plague.—No further case of plague in man has been reported, but plague rats continue to be found at intervals in the Darling Harbour area, the locus of infection from the introduction of the disease in Sydney. The Harbour Trust has done good work in concreting parts of the water frontage, but it is the firm opinion of those best able to judge that until the whole work is completed and the harbourage of the rats destroyed there will be a recurrence of plague.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, January, 1908:—

Colour	.. ..	14 ³ Brown.
Clearness	.. ..	Marked.
Odour	.. ..	Nil.
Suspended matter	.. ..	Very slight.
Total solids	.. ..	91.0000
Chlorine	.. ..	3.3700
Free ammonia	.. ..	.0000
Albuminoid ammonia	.. ..	.0126
Nitrogen as nitrites	.. ..	.0000
Nitrogen as nitrates	.. ..	.0043
Oxygen absorbed in 4 hours	.. ..	.0882
Permanent hardness	.. ..	1.7
Total	.. ..	3.2

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septio Tank Installations at the North Sydney Outfalls during January, 1908:—

Final Effluents from -	Turbidity.	Odour.	Parts per 100,000.							Per cent. Purification.		Incubator Test Seven days at 57° C	
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.		Oxygen ab- sorbed in Four hours.
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatawood ..	.. M'k'd	Nil	2.13	9.7	1.081	.179	.069	1.713	—	.1098	82.0	76.5	No decomposition
Folly Point..	.. V. f't	Nil	.52	10.8	1.817	.077	.032	.960	—	.546	93.8	90.1	.. ..
Balmoral ..	.. " "	Nil	1.22	18.6	1.205	.131	.053	2.293	—	.681	89.2	88.5	.. ..

Outbreak of Typhoid Fever.—So many cases of typhoid fever have been reported to the Board of Health during the last two months that it has been deemed advisable to recommend the public to carefully observe ordinary precautions against the disease until May or June next. No less than 283 cases were reported throughout the State during the last month, as compared with 179 in January, 1907, and 237 in January, 1906. A return has been prepared showing that typhoid during the first half of 1906 was much more prevalent than during the corresponding half of 1907, the figures for the period ending July 15 working out at 1832 cases in 1906, and 1203 cases in 1907. So far as the metropolitan area is concerned the cases of typhoid reported during January numbered 94 in 1903, 85 in 1904, 73 in 1905, 70 in 1906, 33 in 1907, and 113 this year. The increase in the prevalence of typhoid fever during last month has been rather generally diffused over the whole of the central and western portion of the metropolis.

Ptomaine Poisoning.—Cases of ptomaine poisoning, in the majority of instances not followed by death, but always accompanied by serious illness, have been rather frequent of late. Some of the cases have been traced to whitebait and tinned fish, and others have been due to oysters that had been opened a considerable time before being eaten. The ptomaines found in oysters are particularly virulent. During the prevalence of hot weather oysters should be cooked, and any of the bivalves, the shells of which are slightly open, or which give a hollow sound when tapped with the iron instrument used for opening them, should be rejected.

Victoria.

Pure Food.—Under the Pure Food Act municipalities are required to have three samples of food per 1000 of their population analysed annually. Eighty-three councils have availed themselves of the services of the Government Analyst, and their population showed that they should, under the Act, have sent in 1542 samples. It is remarkable that they have sent in exactly that number, but some have submitted more and others less than the required total. Ballarat was obliged to send in 89, and has sent 99; Geelong should have sent in 22, and sent 42. Brunswick's number was 78, but the number sent was only 47. The returns of other municipalities varied similarly.

Supervision of Boarded Out Infants.—By the Infant Life Protection Act, passed last session, the supervision of boarded out children is placed under the Neglected Children's Department. Three lady inspectors have been appointed to inspect the homes of the registered nurses, and the infants in them. Sir Alexander Peacock does not intend to allow the registration of a nurse to be construed into a license to keep a baby farm, and there are to be no repetitions of the Preston case. One nurse will not be allowed to keep more than three infants, and the number will probably be restricted to two.

Queensland.

Bubonic Plague.—Dr. B. B. Ham, Commissioner of Public Health reports, for the four weeks commencing January 18, 1908. Brisbane. *Plague in Man.*—Remaining under treatment, 1; admitted during the period, 3; died 2; date of attack of last case (No. 4), February 7th, 1908. Case 2 (1908).—D.B., aged 23 years, male,

employed at a butcher's shop Leichhardt-street, Spring Hill, and residing at 198 Wharf-street, case was reported on 18th January, and patient died on January 21st, 1908. Case 3.—C.N., aged 62 years, female, a married woman residing at Leichhardt-street, Spring Hill, next door to butcher's shop mentioned in case 2. Case was reported on 21st instant, but died before visit of Health Officer the same day. Case 4.—C.A., aged 21 years, female, daughter of case 3, and residing same place. Reported January 21st, 1908. Removed to plague hospital January 23rd, 1908. Four dead rats too decomposed for examination, but probably plague-infected, were discovered on the 22nd instant, during the cleansing operations at the butcher's shop next door to the residence of cases 3 and 4, and where case 2 was employed. The cleansing operations are still proceeding, the whole area being searched for infected rats. Cases 1 to 4 have all come from a comparatively small infected area in Leichhardt-street, Spring Hill. II. *Plague in Rodents.*—During the the period 1730 rats and 223 mice were destroyed; 1419 rats and 199 mice were examined. The last infected rats were found on the 22nd January, 1908, within the area of Spring Hill. Case 5.—G. E., a girl aged 25 years, living at West End, Brisbane, but lately residing at Wharf-street, in the vicinity of Spring Hill; reported February 5th, 1908; removed to plague hospital February 6th, 1908. No infected rats have been found on the premises or in the vicinity thereof. Case 6.—F. G., male, a tramway employee, aged 18 years; reported on February 7th, 1908. Lately residing same house as Case 5. Removed to plague Hospital on the 8th idem. Cairns.—On the 23rd instant a case of plague was reported by the Health Officer at Cairns. The patient, who was employed as a cook on a sugar plantation at Mulgrave, 21 miles from Cairns, died on the 29th idem. The town of Cairns is free of plague. Plague-infected rats were found on the plantation, and every effort is being made to exterminate them. Of 115 rats examined during the week 27 were found plague-infected. No further cases have been reported from Mulgrave Sugar Plantation.

New Zealand.

Importation of Methylated Spirits.—The Minister for Customs, in introducing the Methylated Spirits Bill in the House of Representatives, stated that the importation of methylated spirit had rapidly increased to 70,000 gallons, which is more than could be used in the manufactures of the Dominion. He felt that it was necessary to prevent fraud on the Customs revenue and on *bona fide* manufacturers. Essence of lemon is being sold at 18s a gallon, whereas if properly made in bond it could not be sold for less than 26s.

Proprietary Medicines.—"The passing of the Food and Drugs Act and the masterly effort of the Chief Chemist of the Government Bureau of Agriculture (America), are having a tremendous influence," says *Sharland's Medical Journal*, "in tearing away the veil of secrecy from proprietary medicines, which are largely used and prescribed by the medical profession. Practitioners have been amazed to discover that some specialty that they have been employing for years owed its virtues to morphia, cocain, codein, hydrated chloral or other powerful agent. These were skillfully concealed, pleasantly presented, and confidently swallowed. The fiat issued from Washington that the label must tell the truth marks the death knell of many specialties, and it is but the beginning of a reform which is far-reaching."

Public Health in Queensland.

ABSTRACT OF THE ANNUAL REPORT OF THE COMMISSIONER OF PUBLIC HEALTH (DR. BURNETT HAM).

Infectious Diseases.—The following are the cases of infectious diseases in respect of which formal certificates were received by the Department from medical practitioners throughout the State:—Diphtheria, 388; membranous croup, 4; typhoid fever, 516; Erysipelas, 53; puerperal fever, 15; phthisis, 193; scarlet fever, 26; total, 1195.

Plague.—For eight years in succession Brisbane has been visited by an epidemic of plague. The last case in man, in 1906, was reported on the 18th December; the last infected rat on 28th December, 1906. The first case in human beings in 1907 occurred in Brisbane on 3rd January, the first infected rat being found in the city 2nd January, 1907.

The experience gained in former years was of service in the methods adopted for dealing with the actual epidemic, but it was felt that more efficient methods of destroying rats, and, if possible, preventing the recurrence of the disease year after year, was the real aim and end to be kept in view. Some legal enactment in the direction of compelling occupiers of premises to keep the latter free from rat-infestation is most urgently required.

Twenty-one cases of plague were reported for the month of January, 1907, in the metropolitan area. Of the above, 16 cases occurred in one small localised area at Kingsholme, New Farm. The source of the outbreak was traced to a general and produce store situated in James-street, Kingsholme. A great accumulation of filth and rubbish was removed by the departmental rat and cleansing gang from beneath the floors of the general and fruit shops in James-street. Three men of the above gang employed in removing this rubbish were attacked with plague. One man died in the Plague Hospital on 31st January, the other two progressed slowly, but finally recovered. The entire "infected area" received the most thorough cleansing, and was diligently searched for rats. Many sanitary defects were remedied and certain structural improvements ordered to be carried out by the local authority. No further cases occurred in this area after the cleansing operations had been completed. Sporadic cases continued to be reported from other parts of the metropolitan districts during the months of February, March, April and May, and in every instance the source of infection was traceable to infected rats.

A fatal case was reported from Ipswich early in February. A fatal case, reported after death, occurred at Townsville on 17th March. This patient had been employed in a produce store, where dead rats were subsequently obtained.

Towards the latter end of January, 1907, some 31 cases of illness were reported by the Health Officer at Port Douglas as suggestive of plague. These cases occurred in the Mossman district, a sugar growing locality situated some 15 miles from Port Douglas. The epidemic was characterised by slight glandular enlargements in the groins, armpits, and neck, raised temperature, slow and low tension pulse, headache, slight congestion of the eyes, and some delirium.

In ten cases the phenomena was more pronounced, and "specimens" of lymph taken from more or less defined buboes were found to contain plague bacilli by the Government Bacteriologist. In all, some 60 persons were reported by the local health officer as suffering from *Pestis Minor* or mild plague.

The Department Health Officer (Dr. Chesson) was despatched to the Mossman district to inquire into and report upon the circumstances of the outbreak. The patients observed by Dr. Chesson, at the time of his visit, early in May, were not, in the opinion of that officer, suffering from plague, the bacterioscopic, cultural, and inoculation tests being negative in every instance. The fact remains, however, that in at least 10 of the earlier cases bacilli morphologically resembling plague were observed in the "specimens" forwarded to the Department for examination.

Leprosy.—Seventeen cases of leprosy have been segregated, as compared with 22 cases of last year.

The new lazaret at Peel Island, where separate accommodation is provided for each patient—with separation of the sexes, the coloured inmates from the whites, as also isolation of the various forms of leprosy—has greatly added to the comfort of these afflicted people.

The possibilities the Leper station now present for a systematic and scientific study of the diseases are unique in many ways, and the question of the carrying out of research work demands urgent attention. So far no progress in this direction has been made. Little or no advance has, so far, been made in the treatment of leprosy. Chaulmoogra oil has been extensively used for the purpose, and while it cannot be considered as a specific, it nevertheless appears to produce considerable improvement in some cases where patients have undertaken their own cure and persevered in taking considerable quantities over a prolonged period.

Phthisis.—The number of cases reported during the year in the metropolitan area was 176, as against 148 of last year. The number of cases reported for the State was 193, as against 113 for the same period in the last annual report.

The operation of compulsory notification continues to be entirely favourable. Staff Nurse Perry, in her annual report to me, states:—

"Owing to the number of plague cases during the six months, I have found it impossible to visit all the cases notified to your Department. I have visited mainly the patients of the working class, observed their mode of living, the condition of the premises, and the preventive measures (if any) adopted.

In the majority of cases the necessity of explaining to the patients and those in contact with them the danger to which they were constantly exposing themselves was very obvious. The patients were extremely grateful for the interest displayed in their welfare; they continue to welcome my visits, and the majority of the cases make every effort to carry out the rules issued in the leaflets.

A number of patients who have not got well-ventilated rooms I urged to sleep out on the verandah, and this, in several instances, prevented three or four of the family occupying the same bedroom as the patient.

I regret that some of the patients are still careless in failing to notify their removal from one place to another, and the houses vacated by them are very often occupied again before any disinfection has been done.

Food.—As in former years, the inspection and examination of foodstuffs have been almost entirely undertaken by the Department. With the single exception of the Brisbane Municipal Council, no other local authority in the State makes even the pretence of carrying into execution the provisions of the Health Act relating to food. An amendment of the Act is necessary if the laws regulating the sale of foods and drugs in this State are to be brought into line with the

standards recently set by Victoria, New South Wales, and Western Australia in the Commonwealth, and New Zealand, and the food legislation recently passed by other countries, such as Great Britain, Germany, France, Belgium, and the United States of America.

The Chief Inspector to the Department (Mr. John Simpson) reports as follows:—

"Owing to the pressure of work in other directions, I have not been able to give the attention I should have liked to this important duty. The wharves and markets, where large quantities of perishable and other produce are handled, have been regularly inspected. The Fish Markets, now under the control of the Metropolitan Fish Board, have been frequently inspected. They have been kept in a scrupulously clean condition, and the cold chambers are a great contrast to the filthy state of things that previously existed. During the year 14 tons of unsound bananas have been condemned and destroyed; 14 lb. of smoked fish exposed for sale at a shop door in a condition unfit for the food of man were seized and destroyed; 1½ cwt. of nutmegs were also condemned and destroyed by fire. Samples of syrups and cordials from a dwelling-house in South Brisbane, occupied by coloured aliens, submitted to Mr. Henderson, Government Analyst, for examination and report, were condemned."

The bulk of the flavouring essences examined were unsatisfactory, and action was taken in each case to have them withdrawn from sale.

Eleven samples of tinned meat out of 38 examined were condemned as containing preservatives.

Samples of pickles, sauces, and vinegars fell below the standard in the majority of cases.

Of 18 samples of tinned peas (imported), 15 were found to contain sulphate of copper in amounts from 1.5 to 3.5 grains per lb.

With regard to temperance drinks and liquor, one sample of hop beer was found to contain 16.6 per cent. of proof spirit, while another sample, by the same manufacturer, contained 25.2 per cent. of proof spirit.

Six out of ten samples of cordials and soft drinks were condemned, owing to the amount of preservative substance contained in them.

Forty-seven samples of liquor were submitted by the Inspector of Inland Revenue (Mr. F. W. Gabriel), who is also an inspector for the purposes of the food sections of the Health Act. Of this number 19 were found adulterated. Nicotine was found in rum from two premises, and the offenders were heavily fined.

Cancer Research Fund.—The fifth annual report of the Imperial Cancer Research Fund, being the report for the year 1906-1907, is now available. "The wide range of research has been maintained as in previous years, but the hopes of advancing knowledge of cancer have become more and more centred in experimental investigations. The statistical investigations have been continued in the London and provincial hospitals, in India, and in various colonies and protectorates." A statistical investigation of cancer was instituted during the year with regard to hospital returns, and to cases occurring in the practice of private practitioners throughout the State. The returns are not yet complete, but will be forwarded, together with specimens, through the proper official channels as they come to hand.

Charitable Bequests and Donations.—Under the will of the late George W. Stafford £400 has been bequeathed to the Toowoomba Branch of the Queensland Ambulance Transport Brigade.

Health of Adelaide.

Abstract of the Annual Report of the Medical Officer of Health, Dr. T. Borthwick, for the year 1907.

Population.—This was estimated by the Registrar-General to be 40,045 on January 1st, 1907. On the corresponding date of last year it was estimated to be 39,905, thus giving an increase of 140 for the last 12 months.

Births and Deaths.—The birth-rate and death-rate per thousand were 20.90 and 20.97 respectively. This death-rate includes all deaths registered within the city bounds; excluding the deaths in public institutions of persons not usually resident in the city, the death-rate becomes 13.93, with an infant mortality of 114 per 1000 births. The public institutions specified by the Registrar-General in his report are the Adelaide Hospital, the Consumptive Home, and the Destitute Asylum, and in previous years the death-rates were calculated on the data supplied by him; but there are other public and semi-public institutions, such as the Children's Hospital, private hospitals, and maternity homes, to which many persons whose homes are outside the city come for treatment. As the result of the non-recognition of these by the Registrar-General, many deaths are credited to the city which do not rightly belong to it; and the mortality rates of the city appear unduly large and, moreover, cannot be fairly compared with the corresponding rates of other Australian cities. In order to arrive at the true rates, the number of deaths of persons not usually resident in the city who had died during the year at the Children's Hospital, private hospitals and maternity homes in the city was ascertained so as to exclude them from the total number of deaths. These amounted to 75, and reduced the total deaths to 483, and the deaths of children under one year of age to 86. A further correction was now made by adding the number of deaths of persons whose place of residence had been in the city, but who died in institutions situated outside the city, such as the Lunatic Asylum, Home for Incurables, various sanatoria, homes, and refuges. These amounted to 26, and brought the total deaths up to 509. Taking the total number of deaths as 509, and the number of deaths of children under one year of age as 86, we arrive at a death-rate of 12.71 and an infant mortality of 102.

On comparison of the figures for previous years, the progressive decline of the birth-rate is apparent, with a very slight recovery (20.90) this year. The death-rate has also shown a progressive decline, with the exception of one year; and for the present year is the lowest on record (13.93). The infant mortality has been variable, as might be expected; but for the present year it is also the lowest on record (114). Both the total death-rate and the infant mortality occupy an exceptionally satisfactory position this year.

Infectious Diseases.—Typhoid.—Ninety cases were reported, of which 80 were imported from outside districts, chiefly for treatment in the city public and private hospitals. This leaves 10 cases, which apparently had their origin in the city. Of these, two can be accounted for, one having contracted infection from a case already in the house, and one having contracted infection in hospital. It was impossible to trace the origin of the remaining eight cases. In nearly every case the premises were in a sanitary condition. The cases were not common to any part of the city nor to any milk supply. Of the ten cases of typhoid fever, which were apparently of local origin, eight were treated in hospitals, and the remaining two at their own homes under the supervision of the City Trained Nurse in respect to

isolation and disinfection. In one house only did infection spread to another inmate after isolation of the original patient. Five deaths were registered during the twelve months.

Diphtheria.—Forty cases were reported, of which 25 were imported for hospital isolation and treatment. This leaves 15 cases, apparently of local origin, to be accounted for. Of these, one was infected from the first patient in the house, whose illness was unrecognised for some time. The remaining 14 cases were not traced to any special source. Of the 15 cases, eight were treated in hospital, the remaining seven being isolated at home under the City Trained Nurse's supervision. In only one house did infection spread to another inmate after isolation of the first patient. No death was registered during the 12 months.

Scarlet Fever.—Thirty-eight cases were reported, of which 20 were imported from outside districts for isolation and treatment in hospital. This leaves 18 of apparently local origin; seven were sent to hospital for isolation and treatment; one contracted the disease in hospital, and was isolated there; and the remaining ten, as well as five imported cases, were isolated at home under the City Trained Nurse's supervision. There was no reason to suspect any milk supply as being the disseminator of infection. No death was registered during the twelve months.

Measles.—The last epidemic occurred in 1902. After its disappearance no case was reported until November 9th, 1905, when a patient suffering from measles came from Cockburn. He was isolated at his home in Adelaide. The next case reported was on October 18th, 1906, and the patient was isolated at home; the source of infection could not be ascertained. No more cases occurred until April 10th, 1907, and it was found that this patient had arrived on March 30th from West Australia, where she had contracted the infection. She was isolated at home, but five members of the family had already become infected, and almost simultaneously developed the disease. These were all also isolated at home, and no extension of the disease resulted. On June 21st a member of a theatrical company arrived by train from Melbourne suffering from measles. She was at once isolated in hospital, and no cases followed. On July 21st three sailors from H.M.S. "Challenger" at Port Adelaide were removed to the isolation hospital at Adelaide. The ship had just arrived from Melbourne. The next case reported was on August 22nd. It was found that the patient had arrived on August 15th by train from Melbourne, where other members of the family had suffered from measles. She was isolated at home. On September 5th a child attending the Gilles Street School was reported suffering from measles, and enquiry showed that several other cases which had not been reported had occurred. These were followed by numerous other cases—some reported, some not—and eventually disease spread to other schools, and promises to run the usual course of an epidemic. Isolation at home of all reported cases was carried out, and at the very first indication of an outbreak a circular was sent to the headmasters of all the schools in the city informing them of the facts, and inviting their co-operation in trying to check it, but for obvious reasons these measures failed.

It appears from the above review that measles was introduced to Adelaide during the last 12 months on five separate occasions, and on at least four of these the measures taken were successful in preventing its spread. In regard to the fifth occasion, no connecting link between the patient and Gilles Street School could be discovered, but in the absence of any other source of

infection, there was reason to suppose that some undiscovered leakage had existed. A careful investigation, however, revealed the source of the school infection. It was found that a family had come from Melbourne on the 22nd July, and on the 6th August a child had sickened with measles. This child did not attend school, but three other children went to Gilles Street School on July 29th, and remained in attendance up to August 8th, when they also sickened with measles. As measles is exceedingly infectious in the very earliest stages, it is clear that the conditions were such as to introduce infection into the school, and further events showed that the disease had obtained a hold before any case was reported. The inference is justifiable that if it had been obligatory to report all cases of measles the present epidemic might have been prevented, and this happy result would have been facilitated if an efficient system of medical inspection of schools had been in operation.

Erysipelas.—Thirty-five cases were reported, of which eight were imported for hospital isolation and treatment. The 27 cases of apparently local origin were not markedly associated with insanitary conditions. No death was registered during the 12 months.

Puerperal Septicæmia.—Eight cases were reported, of which three were imported for hospital isolation and treatment. One death was registered during the 12 months.

Pulmonary Tuberculosis.—151 cases were reported during the year, of which 94 were imported for hospital treatment or came to the city suffering from the disease; 56 deaths were registered during the year. A large number of the houses in which the disease occurred were insanitary; the conditions noted being want of ventilation and want of light in rooms, dampness of walls, and dirty walls and ceilings. These are the conditions which favour the development of the disease, and in order to combat it such houses must be either improved or pulled down. The sudden drop in the number of cases of pulmonary tuberculosis—57, as against 75 last year, and 86 the average for the preceding seven years—is remarkable. I hesitate to claim it entirely as the result of the work of this department, but a marked decline for two successive years, with a marked fall this year in the number of deaths, gives rise to hope, and offers encouragement in the fight against tuberculosis.

The value of the city trained nurse's work is proved by the following results:—Since the Health Act came into operation there have been notified 269 cases of typhoid fever, of apparently local origin, of which 82 were treated in their own homes; secondary cases occurred in seven of the 82 houses, or in 8·5 per cent. Of diphtheria, out of a total of 253 local cases, 96 were isolated at home, and secondary cases occurred in seven houses, or in 7·2 per cent. Of scarlet fever, out of a total of 548 local cases, 402 were isolated at home, and secondary cases occurred in 41 houses, or in 10·1 per cent. In all these instances of secondary infections the houses were of the poorest sort, where effective isolation was impossible.

It is desirable to make further provision for bacteriological diagnosis in the case of persons too poor to pay for it, and also in cases of public importance; and in order to carry out efficient disinfection without having to destroy various articles, a steam disinfectant should be obtained as soon as possible.

Some progress has been made during the year in the crusade against consumption. The Metropolitan Local Boards of Health have contributed £352 per annum towards the funds of the James Brown Trust, which in

return provided at least seven beds at Kalyra for the treatment of poor patients in the early stages of the disease. Twenty-eight patients were admitted during the year, of which 11 came from the city. In addition to this there are the already existing sanatoria for patients able to pay, and the Government has provided for the isolation and treatment of poor patients in the advanced stages of the disease. To this latter institution 16 patients were admitted from the city during the year. As far as the city is concerned, the education and supervision of consumptive patients are being carried on by the city trained nurse, and every house is disinfected after removal or death of a patient.

General Sanitation.—Systematic inspection of a house to house character has been continued during the year. Markets have been under constant supervision; butchers' premises and slaughterhouses, hide and skin marts, offensive trades, produce stores and salerooms, dairies and cowyards, restaurants, bakehouses, fish-hawkers' and icecream vendors' premises, livery and other large stables, marine stores, public w.c. and urinal accommodation have been inspected and reported upon every month. The following have received quarterly attention:—Schools (public and private), lodging houses, banana ripening rooms; while private hospitals, maternity homes, boarding houses, and hotels are specially inspected annually in view of licensing and registration. Special reports have been furnished during the year on schools in the city, milk supply from outside districts, fish supply of the city, flock and other materials used in the manufacture of bedding, etc., and dentists' premises.

During the year 10 houses were condemned as unfit for human habitation, of which three were ordered to be taken down, while the remainder were placed in a satisfactory condition. 573 notices were served to cleanse, ventilate, or repair other houses.

Twenty samples of milk were purchased during the year for analysis. Of these only three were found to be below the standard. Two of the offenders were prosecuted and fined.

A crusade against rats at the city slaughterhouse was initiated during the year with the result that 1007 were killed within a few months.

The by-laws prohibiting spitting on the footpaths is still being enforced, and it is gratifying to report that this objectionable and dangerous practice has been to a considerable extent checked. In the matter of lavatory accommodation, Adelaide is still decidedly behind the times, and it is necessary for the Board to take into its early consideration the provision of public conveniences for both men and women.

HOSPITAL INTELLIGENCE.

Balmain and District Hospital, Sydney.—Last month the Premier (Mr. Wade) opened the additions which have just been made to the Balmain and District Hospital. The institution has practically been rebuilt, and the increased accommodation provides for 14 extra beds, or a total of 42 beds, an isolation ward, an operating room, and greatly improved accommodation for the nurses. About £3000 was expended in the additions. Mr. Wade congratulated Balmain on securing such an institution, which would not only meet the wants of the sick poor, but be an ornament to the district. The Government had assisted them, and he trusted that the residents would do their part, as they had done in the past, in facing the increased burdens, and carrying on the work efficiently. The Governments of this State had always recognised fully the

obligation to give a helping hand to hospitals in the various parts of the State, but he hoped that that liberal policy would not dry up the springs of charity. He paid a warm tribute to the heroic work of the nursing staffs of hospitals generally, and was glad to see that in their reconstructed building suitable provision had been made for the accommodation of their nurses. The untiring efforts of the various friendly societies in building up the institution were worthy of admiration. To the cost of the building, which he understood was about £3000, the Government had contributed £2500, and a request had been made for an additional £500. Although not able to accede to that request the Chief Secretary had apportioned for their benefit the sum of £300.

Lithgow Hospital, N.S.W.—The president and secretary interviewed the Chief Secretary, Mr. Wood, with reference to a grant of £500 to the Lithgow Hospital in completion of a grant of £1000, which, it was understood, would be forthcoming when the contract for additions to the hospital was undertaken. At present there is only sufficient money at fixed deposit to meet estimated ordinary liability to the end of the financial year. Mr. Wood agreed that the committee had a genuine list of requirements for the £500, but would make no definite promise. He asked for a detailed position of affairs, and promised to consider the matter.

Hobart Hospital.—At the monthly meeting of the Hospital Board of Management held last month the visiting committee reported that in January, 1903, at the express wish of the Government, the board of management of the Hobart General Hospital consented to the resident house surgeon acting as visiting medical officer at the Hobart gaol. This work Dr. Roberts has regularly performed without any remuneration for such services. Last session of Parliament a sum of £25 was placed on the estimates to pay for the services of a medical officer, and the committee strongly recommends the board to make application to the Government for the payment of the amount above mentioned (£25) to Dr. Roberts. The Finance Committee reported that the fees collected during the month amounted to £77 12s, and at December 31st the sum of £398 10s 2d remained on the books for collection. During the month 219 patients were treated in the hospital. Of this number 126 were discharged and 5 died, leaving in the institution on January 1st, 54 males and 34 females. Of the 219 in-patients 84 came from country districts, 61 were paying patients, and 158 were admitted free. The daily average number of occupied beds during the month was 95, as compared with 85 last year, and 73 during December, 1905. In the out-patients' department 126 new cases were treated, casualties 22; total attendances, 475. It was decided to make application to the Government for the amount of £25 placed on the estimates for the medical officer's services at the gaol, the duties having been performed by the house surgeon. A letter was read from the Mayor stating that various difficulties had arisen in regard to the erection of the proposed infectious diseases hospital. Negotiations were now in progress between the Government and the Council in reference to the money required for the purchase of the site, and the erection and the equipment of the necessary buildings, and it was hoped that a satisfactory settlement would be made shortly.

Women's Hospital, Melbourne.—At the final meeting of the Women's Hospital appeal committee

held last month the Lord Mayor stated that in all £11,024 had been got together, including £5000 Government grant. The appeal to the public had been generously responded to, and the hospital would be greatly benefited. The proprietary of the Moonee Valley Racing Club had given a benefit meeting which had netted £702 9s. It was decided by the meeting that a list of life governors should be issued, which would include the names of many who had rendered the appeal-signal assistance. It was decided that, as its needs were so pressing and the response to the appeal had been so liberal, the work of building should be commenced at once. The first portions to be erected are the out-patients' department and nurses' quarters. The desire was expressed that the foundation stone should be laid by the Lady Mayoress before she leaves for her projected trip, and that the new buildings should be so named as to be a permanent record of her success in raising so great a sum.

Royal North Shore Hospital, Sydney.—At the annual meeting of the Royal North Shore Hospital of Sydney held last month the annual report showed that the financial position was sound. Reference was made to the completion of the new wing, by which an additional 18 beds had been provided. During the year 707 patients had been treated, an increase of 62 on the figures of the previous year. Of those, 558 were discharged cured, 38 relieved, 16 unrelieved, while 44 had died. The average daily number resident had been 48·47, while the percentage of deaths was 6·22. The total cost of maintenance and treatment was £3025 6s 1d, and the average cost per head £62 8s 3d. The receipts, apart from the Government subsidy, showed an increase. The subscriptions totalled £580 15s 10d, being a decrease of £84 3s 10d, but donations showed an increase of £121 5s 8d, the total for 1907 being £111 3s 9d. Out of 707 patients, 233 contributed a sum of £498 11s 5d. Three hon. masseuses were added to the staff, with beneficial results. Appreciation was expressed at the assistance rendered by the maintenance of the Kathleen, Mosman, and North Sydney School Girls' Hospital League cots. Owing to the growth of the institution, and the large increase of population in the northern suburbs, the committee deemed it desirable to apply to Parliament for an Act to incorporate the hospital. A bill has been drafted, and is in the hands of the Premier. Great appreciation was expressed at the assistance rendered by the ladies of the district, under the "Northern Suburbs Hundred" scheme, the executive of which collected £494 16s 2d by a house-to-house canvass. As the still rapidly-increasing population of the district rendered the calls on the hospital heavier each year, the committee trusts that increased support will be accorded.

AUSTRALASIAN UNIVERSITIES.

Sydney.—At the monthly meeting of the University Senate, held on February 3rd, Professor Welsh and Dr. Alexander MacCormick were appointed examiners for the M.D. examination. The Chancellor reported that on January 3rd, in terms of his authority, he had conferred the degree of Bachelor of Medicine upon a number of graduates. A letter was received from the president of the Sydney Chamber of Commerce, offering, in the name of the council, an annual prize of £5 5s, to be known as "The Chamber of Commerce Prize," for the greatest proficiency during the three years' course on economics and commerce. It was resolved to accept the offer, and the acting-registrar

was instructed to forward a letter of thanks. The date of the annual commemoration was fixed for Saturday, May 2.—To meet the growing demands of the Medical School within the University of Sydney it has been found necessary to make considerable additions to the existing building, and also to remodel the interior of the present school. The work, it is estimated, will run into something over £20,000. The plans provide for the erection of a north wing, which will form the first portion of a quadrangle, and will occupy a position between the northern side of the present Medical School and the main University buildings, and between these two blocks an avenue, 120 feet wide, with trees on either side, is provided for. The new wing to the Medical School will be a stone building, three stories in height, and the exterior will correspond with the existing block. Clean chiselled masonry, with tracery windows and a fair amount of carving throughout the façades, turrets, etc., will be the main features of the outside walls. The present building and the new wing will be connected by a handsome cloister leading from the Pathological Museum to extensive corridors running to all rooms in the new wing and to the upper courtyard. In the centre of the new wing there will also be an extensive courtyard. The additions will provide a sub-basement, which will be divided and fitted as the caretaker's residence, and will also provide extensive storerooms. On the ground floor there will be a bacteriological classroom 33 ft. by 38 ft., a pathological lecture-room 44 ft. by 35 ft., a bacteriological laboratory 25 ft. by 12 ft., and a bacteriological preparation room of equal dimensions. On the first floor will be a materia medica classroom, 33 ft. by 38 ft., a materia medica lecture hall 44 ft. by 35 ft., a Hunterian theatre with students' gallery, a surgical classroom, and rooms for the lecturer in surgery. The floors will be constructed of reinforced concrete with wood on top, and the fittings throughout will be of polished cedar. In the basement will be an extensive heating chamber and destructor. The erection of these new and extensive class and lecture rooms will greatly relieve the present tension on space in the existing building, and in consequence a number of alterations are to be made, which will be embraced in the contract for the erection of the new wing. The removal of the caretaker to his new quarters will enable the rooms at present used by him and his family in the sub-basement to be fitted as a common room for the lady students, with full lavatory accommodation attached. Then one of the rooms on the ground floor will be remodelled as a practical pathology classroom, with gallery attached. On the first floor additional accommodation will be provided to the dissecting room, which will be fitted with a gallery on three sides. A new museum of anatomy is also to be provided, as well as an additional study and bone room, with a gallery over.

MEDICAL NOTES.

Sydney Hospital Saturday Fund.—At a meeting of the directors of this fund, held on January 28th, the date of the next annual outdoor collection was fixed for May 2nd, and the executive committee announced that application had already been made to the Sydney City Council and 48 suburban municipal councils for permission. The whole of the arrangements for carrying out the collection were left in the hands of the executive committee, who advised that a revision of the collecting sections in the city area had been made, which would increase the number of sections from 71 to 78. The new subdivisions affected principally the

thickly populated districts of Surry Hills, Darlinghurst, and Woolloomooloo, and the hope was expressed that ladies willing to undertake the visitation of these new divisions for a thorough collection may be found. Mr. S. H. Solomon, F.C.A.A., one of the directors, has, at the request of the executive, devised a new method of registering the returns. This will be submitted to the bank officials, and if approved it is anticipated that much time and clerical labour will be saved in furnishing the returns.

According to the *Tasmanian Mercury*, the Board of Management of the Launceston General Hospital has established a reputation for its unique methods of dealing with many things, but its method of conducting elections out-distances them all. Exception has been taken to the practice by which elections to the board are made by the board itself, and by which the return of members whose terms of office become vacant is an established rule, but no one knew or suspected that members seeking re-election have been permitted to vote themselves. Thus Brown and Jones, who desire to be re-elected, are permitted to vote for themselves, but Jones, who has never sat on the board, but desires to do so, is not similarly favoured. It is about time that the Premier completed that long-promised bill dealing with the management and control of hospitals.

After Care Association.—The first annual meeting of the After Care Association was held last month in the Sydney Town Hall. The chairman, moving the adoption of the report and balance-sheet, said the work done by the Association so far had been exceedingly satisfactory. The object of the Association was that when men or women passed through a hospital for the insane care should be taken that they should not have the worry and anxiety of looking for work, which would often throw them back to the position from which they had recovered. Dr. McDouall, seconding the motion, said insanity was a disease of the mind, just as much as pneumonia and pleurisy was a disease of the body, and it was the object of the Association to bring about a better understanding with the public in regard to hospitals for the insane. The time had long gone by when persons who were mentally afflicted were regarded as being the objects of a visitation of Providence for some past sin. People were beginning to recognise that the mentally afflicted were just as much entitled to help as those who suffered from bodily disease. As a matter of fact, a large number of these cases recovered, and it was easier to deal with some of these—even those formerly regarded as hopeless—than it was to cure a rheumatic patient. Their chances of recovery, in a very large percentage of cases, were very much greater than those of, say, cancer patients.

Queen Victoria Homes for Consumptives.—A special meeting of the association was held at the Sydney Town Hall on February 3rd for the purpose of considering proposed amendments in the articles of association. The amendments were considered *seriatim*, and, with the exception of one, were all adopted. Their object is to liberalise the scope of the association, so that when confirmed, as they will no doubt be in about a fortnight, it will be possible for persons to become members of the association at any time, and to have the right to vote at any meeting. Hitherto persons had to subscribe at a given time to have the right to vote. Further, one amendment extends the privilege of life governors and life members to those persons who contributed £1000 and £50 respectively to the funds prior to the date of incorporation.

Victorian Inebriate Retreat.—There are now 16 inmates of the Government Inebriate Retreat at

Lara. Up to the end of last year 30 cases had been received at the institution, and a number of these had been passed out on probation. Of the 30 received, 24 had been previously treated in other institutions. The Inspector-General of the Insane, Dr. Jones, states that there is an impression that the inmates of the Lara retreat are treated as if they were inhabitants of Pentridge, that they are compelled to wear Government clothes, and do very laborious work on the farm and in the garden. This is not the case. The patients are allowed to wear their own clothes, and enjoy a very considerable liberty. As far as work is concerned, they are only asked to do suitable work of a light character.

PERSONAL ITEMS.

We regret that through inadvertence it was announced in our personal column last month that Professor Anderson Stuart had left Sydney on a trip to Europe. Professor Stuart has returned to Sydney after a visit to Hobart.

Dr. Mary Booth returned by the Macedonia last month after an extended tour in America, Europe and India, to take up work again. While abroad she took the opportunity of seeing the development in the teaching of hygiene and medical inspection of schools, and attended the International Conference on School Hygiene in London in August as a delegate from the Department of Education of New South Wales, renewing acquaintance with former friends and colleagues.

Dr. R. H. Cole, P.M., who has been acting as District Coroner in Melbourne for some years, has now been appointed City Coroner of Melbourne.

Dr. G. H. Taylor, Government Medical Officer and Pathologist, Sydney, has been appointed to succeed Dr. Woodward as medical officer to the New South Wales Railways and Tramways.

Dr. Ashburton Thompson has returned to Sydney from his visit to Europe, and resumed his duties as President of the Board of Health.

At a special meeting of the Hobart General Hospital Board last month the resignation of Dr. Jessie Aspinall of the position of junior house surgeon was accepted with regret. The medical staff eulogised her services to the institution.

Dr. Herbert Lee, late of Gunnedah, N.S.W., has commenced practice at Victoria Avenue, Chatswood, Sydney.

Dr. Wilson, of the A.M.P. Society, who has been transferred from Bathurst to the New England district, was entertained by his friends at the Grand Hotel on January 6th.

Dr. W. Mackenzie, F.R.S.E., lecturer on anatomy at the Melbourne University, who has been on a visit to the University of Heidelberg, Germany, has returned to Melbourne.

Dr. Samuel T. Knaggs, of Sydney, has left on an extended trip to Europe via Suez Canal, and purposes returning by way of America.

Dr. McKeown Withers has purchased the practice of Dr. Gossett, of Leeton, N.Z., and commenced the practice of his profession on January 1st, 1908.

Dr. J. G. Macdonald, of Otago, N.Z., has returned to Dunedin, after a five years' absence in the old country.

Dr. C. G. Lander has returned to Adelaide from a six months' visit to Great Britain. Dr. Lander spent a considerable time in the post graduate work at the London and other hospitals.

Mr. A. H. M. Maxwell, of Geelong, Victoria, has passed the final examination in medicine and surgery at the University of Edinburgh.

Dr. J. W. Kennedy, formerly of Hay, N.S.W., is now practising at Ocean-street, Woollahra, Sydney.

Dr. Kilpatrick has resigned his position as medical officer of the Omeo Hospital, W.A.

Dr. C. P. B. Clubbe has resigned his position as honorary surgeon of the Royal Prince Alfred Hospital, Sydney, after 12 years' service.

Dr. C. L. McCarthy has returned to Footscray Victoria, after an absence of 12 months on tour. Dr. McCarthy suffered, whilst at Rome, from a severe attack of typhoid fever, from which he has not yet fully recovered.

Dr. John MacPherson has been elected an alderman of the municipality of Young, N.S.W.

Dr. E. H. Molesworth, M.B., Ch.M., who has just completed a two years' appointment as a resident medical officer of the Royal Prince Alfred Hospital, has left on a trip to Europe.

Dr. G. P. M. Woodward, who recently retired from the position of medical officer of the New South Wales Railways, a post which he has held for the past 20 years, left Sydney for Christchurch, New Zealand, on February 8th, where he intends to reside for the future.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Abbott, G. H., B.A., M.B., Ch.M. (Syd.), to be Hon. Surgeon, Royal Prince Alfred Hospital, *vice* C. P. B. Clubbe, M.R.C.S., resigned.

Aspinall, Jessie, M.B., to be Resident Medical Officer of the Women's Hospital, Crown Street, Sydney.

Buchanan, Wm., M.B., M.S., to be Government Medical Officer and Vaccinator at Narromine, *vice* W. R. Tomlinson, resigned.

Clubbe, C. P. B., M.R.C.S. (Eng.), L.R.C.P. (Eng.), to be Consulting Surgeon, Royal Prince Alfred Hospital.

Harper, Dr. Margaret, to be Resident Medical Officer of the Royal Hospital for Women, Paddington, Sydney.

Sandee, F. P., M.D., Ch.M. (Syd.), to be Hon. Assistant Surgeon, Royal Prince Alfred Hospital, Sydney.

Taylor, G. H., to be Railway Medical Officer, *vice* Dr. Woodward, resigned.

Veech, Michael, M.B., M.S., to be Government Medical Officer and Vaccinator at Molong, *vice* Jas. Reisch.

VICTORIA.

Good, R. N. S., to be House Physician at the Ballarat Hospital.

The following appointments have been made to the Alfred Hospital, Melbourne:—

Dr. Player, Hon. Assistant Physician (re-elected); Dr. Joske, Hon. Assistant Surgeon, Children's Ward (re-elected); Dr. Argyle, Hon. Medical Electrician and Skiagrapher, *vice* A. Beckett; Dr. Robertson to be Resident Surgeon.

The following persons to be Officers of Health for the districts set opposite their names, viz.:—

Jordan, Thomas Furneaux, M.R.C.S., Borough of Sebastopol, *vice* Louis Frederick Showman, L.R.C.P., resigned.

Robinson, Douglas Albert, L.R.C.P., to be Public Vaccinator for Northern District, *vice* Henry McCarthy, M.R.C.S., resigned.

Stang, Thomas, L.R.C.P., to be Public Vaccinator for North-Eastern District, *vice* Charles Fetherstonhaugh, M.B., resigned.

Walsh, Gerald, M.B., Shire of South Gippsland.

SOUTH AUSTRALIA.

The undermentioned appointments have been made in the Adelaide Hospital, viz.:—

Wilson, Hugh Campbell, M.D., to be Resident Pathologist. Lionel Oxborrow Betts, M.B., Sydney George Leyland Catchlove, M.B., Lewis Wibmer Jeffries, M.B., Devon Parkhouse, M.B., and Reginald John Verco, M.B., to be Resident Medical Officers.

Faculty of Medicine.—The undermentioned were appointed Honorary Demonstrators of Anatomy for 1908 of the Adelaide University:—H. M. Mayo, H. Gilbert, and H. S. Newland. Dr. Cudmore was appointed Lecturer on Clinical Surgery, *vice* Dr. W. Anstey Giles, resigned.

TASMANIA.

Wolfhagen, J. E., M.B., C.M., to be Hon. Medical Officer of the Hobart General Hospital.

SOUTH SEA ISLANDS.

Money, Dr., from New Zealand, to be in the Medical Department, and to be stationed at Haapai.

Chesson, Dr., late of Brisbane, is now at Vavau.

NEW ZEALAND.

Withers, John McKeown, M.B., Ch.B., to be a Public Vaccinator for the District of Ellesmere, *vice* G. Gossett, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

NEW SOUTH WALES.

Flecker, Hugo, M.B. (Syd.), 1908.
Brooks, George Arthur, M.B. (Syd.), 1908.
Matthews, Henry Delahunt, M.B. (Syd.), 1908.
Stephens, Frederick Glover Neason, M.B. (Syd.), 1908.
Tomlinson, George Leigh, M.B. (Syd.), 1908.
Weedon, Cyril James, M.B. (Syd.), 1908.
Welch, Kenyon St. Vincent, M.B. (Syd.), 1908.
Giblin, William Eric, M.B. (Syd.), 1908.
Murray, James Adam Johnston, M.B., M.S. (Edin.), 1888.
Faulkner, Thomas Wrenn, L.R.C.P. (Edin.), L.R.C.S. (Edin.), L.F.P.S. (Glas.), 1907.
Harkin, Alfred Cohen, M.B. 1905, B.S. (Melb.), 1906.
Henry, Ellen Elizabeth, M.B., B.S. (Melb.), 1907.
Hollywood, James Joseph, M.B., B.S., R.U. (Irel.), 1906.

For Additional Registration.

Rennie, George Edward, F.R.C.P. (Lond.) 1907.

TASMANIA.

Astles, Harvey Eustace, F.R.C.P. (Edin.), 1879; M.D. (St. And.) 1883.

Matheson, Murdoch, M.D. (Kingston, Canada), 1870.

SOUTH AUSTRALIA.

Deravin, Garnet Wesley, M.B., B.S. (Melb.), 1907.
Verco, Reginald John, M.B., B.S. (Adel.), 1907.
Betts, Lionel Oxborrow, M.B., B.S. (Adel.), 1907.
Parkhouse, Devon, M.B., B.S. (Adel.), 1907.
Catchlove, Sydney George Leyland, M.B., B.S. (Adel.), 1907.
Jeffries, Lewis Wibmer, M.B., B.S. (Adel.), 1907.
Magarey, Archibald Campbell, M.B., B.S. (Adel.), 1907.
Weidenbach, Arnold Edwin, M.B., B.S. (Adel.), 1907.
Cowan, Frank Gladstone, M.B., Ch.B. (Edin.), 1907.

VICTORIA.

Downes, Rupert Major, M.B., Ch.B. (Melb.), 1907.
Johnson, Maurice Buchan, M.B., Ch.B. (1903), M.D. (Aberd.), 1907.
McBryde, Charles, M.B., Ch.M. (Glasg.), 1886.
Walker, William James Alexander, M.B., Ch.B. (Glasg.), 1897.

WESTERN AUSTRALIA.

Arkle, James, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1902; F.R.C.S. (Eng.), 1907.
Campbell, John Stuart, M.B. (Syd.), 1907.
Chapman, Herbert Owen, M.B., M.S. (Syd.), 1907.
Innes, Stephen John, L.S.A. (Lond.), 1880; L. et L.M.R.C.P. (Irel.), 1886.
Shields, Clive, M.B. (Melb.), 1905; B.S. (Melb.), 1906.
Taylor, Robert Stanley, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1905; M.B., B.S. (Cantab.), 1906.
Young, Andrew Stewart, M.B. (Melb.), 1906; B.S. (Melb.), 1907.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

- CORLETTE.**—February 10, 1908, at 4 Lyons Terrace, Liverpool-street, Sydney, the wife of Dr. C. E. Corlette—a son.
- THOMAS.**—February 1, 1908, at Bank House, Liverpool-road, Ashfield, Sydney, the wife of G. Bowen Thomas—a daughter.
- DEVLIN.**—January 29, at St. Osmat's, North Sydney, to Dr. and Mrs. Devlin—a daughter.
- ERCOLE.**—Sunday, January 19, at her mother's residence, Braeside, Kogarah, the wife of Dr. Q. Ercole, Grenfell, N.S.W.—a son.
- HANSARD.**—At "Tamerama," Rylstone, N.S.W., January 20, to Dr. and Mrs. Norman W. Hansard—a daughter.
- JENNER.**—December 14, 1907, at Evema, Norton-street, Leichhardt, Sydney, the wife of Dr. Jenner—a daughter.
- MATHWIN.**—January 13, at a private hospital, Melbourne—Victoria, the wife of Dr. Frank S. Mathwin, of Snowtown—South Australia—a daughter.
- MAWSON.**—January 22, 1908, at Stanmore, Sydney, the wife of William Mawson, M.B., Ch.M.—a daughter.
- PENNY.**—February 4, at Nambour, Queensland, the wife of Dr. A. Gervase Penny—a daughter.
- SCOTT.**—February 3, at Wanowai, Dapto, N.S.W., the wife of A. E. Scott, M.B.C.M., Edin.—a son.
- VERCO.**—January 11, at Woodside, South Australia, the wife of Sydney M. Verco, M.B.—a daughter.

MARRIAGES.

- HODGSON-SAPSFORD.**—January 29th, at St. Stephen's, Newtown, Curtis R. Hodgson, M.D., B.S. (Lond.), Dulwich Hill, to Janie E., daughter of the late T. H. Sapsford and Mrs. E. Sapsford, Hatton, Marrickville.
- BORTHWICK-WILLIAMSON.**—November 5th, at Edinburgh—F. Halidon Borthwick, M.B., Ch.M., D.P.H., to Grace Mary, daughter of the late Captain Williamson and Mrs. Williamson, 24 Chalmers-street, Adelaide.
- DE SELINCOURT-WHEELER.**—December 19th, Hugh, youngest son of Mrs. de Selincourt, of 26 Belsize Grove, N.W., to Janet, youngest daughter of Henry Wheeler, L.R.C.P. (Lond.), M.R.C.S. (Eng.), of Norwich.
- PATON-WARREN.**—February 8th, at Chalmers Presbyterian Manse, Adelaide, Dr. James Scott Paton, of Dudley, N.S.W., to Mabel Kathleen, daughter of Dr. E. C. Warren, M.O.H., Gillingham, Kent, England.

DEATHS.

- BARRETT.**—January 15th, at Howe-crescent, Albert Park—Melbourne, Dr. James Barrett, aged 73 years.
- BIRCH.**—January 1st, aged 82 years, S. B. Birch, M.D., M.R.C.P., (Lond.), M.R.C.S. (Eng.), of Harley-street, Cavendish-square, London W., father of Surgeon-Colonel Henry Birch and Dr. C. O. Birch, of Liverpool, N.S.W.
- COX.**—By cable from London.—Dr. Allaster Edward Cox, late of Forbes, N.S.W., son of Dr. James C. Cox, Sydney.

McCALL.—January 22nd, at his residence, 206 Lennox-street, Richmond, Victoria, Robert McCall, L.R.C.P. and L.R.C.S. (Edin.), aged 70 years.

SEGOL.—January 21st, at his residence, Namoi, Avenue-road, Mosman, Sydney, Dr. Louis Segol, late of Narrabri, N.S.W.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. Litchfield, Sydney; Mr. G. T. Taylor, Hobart; Dr. H. E. Lee, Sydney; Fresh Food & Ice Co., Sydney; Veterinary Surgeon Desmond, Adelaide; Mr. W. Arnott, Newcastle; Mr. James Little, Melbourne; Messrs. H. A. Rose & Co., Sydney; Messrs. Beard Watson, Sydney; Messrs. Parke, Davis & Co., Sydney; Mr. Geo. Hudson, Sydney; Mr. J. G. Woodward, Sydney; Messrs. Allen & Hanbury, Sydney; Dr. E. Sinclair, Sydney; Dr. B. B. Ham, Brisbane; Dr. J. H. Saunders, Sydney; Dr. J. K. Kelmar, Bendigo, Victoria; Dr. A. Corry, Egerton, Victoria; Messrs. Coffill & Co., Sydney; Mr. W. Ramsay, Sydney; Dr. F. G. Griffiths, North Sydney; The Fellows Medical Mfg. Co., New York; Messrs. Brentano's, Washington, U.S.A.; Messrs. J. Walsh, Hobart; Dr. H. G. Chapman, Sydney; Dr. E. S. Stokes, Sydney; Dr. Kortum, Cooktown, Queensland; the South British Insurance Co., Sydney; Dr. R. J. Millard, Sydney; Messrs. Denyer Bros., Sydney; Dr. C. W. Mollison, Melbourne; Dr. Fourness Barrington, Sydney; United Typewriters Supply Co., Sydney; Dr. Q. Ercole, Grenfell, N.S.W.; Baillière, Tindall & Cox, London; Mr. W. E. Smith, Sydney; Dr. F. Antill Pockley, Sydney; Miss McVicar, Sydney; Messrs. Angus & Robertson, Sydney; Dr. W. G. Armstrong, Sydney; Mr. L. Bruck, Sydney; Dr. Guthrie Rankin, London; Messrs. Felton, Grimwade & Co., Melbourne; Dr. J. Macpherson, Young, N.S.W.; Dr. G. W. Armstrong, Melbourne; Dr. A. B. Brockway, Brisbane; Dr. Hy. Laurie, St. Kilda, Victoria; Dr. Lipscomb, Sydney; Dr. Flashman, Sydney; Dr. Lockhart Gibson, Brisbane.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON)
MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics—*Eucalyptus Globulus* (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), *Thymus Vulg.*, *Pinus Sylvestris*, *Mentha Arv.*, with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. *The Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." *The Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

List of Members of the New South Wales Branch of the B.M.A.

Revised to 14th February, 1908

*Abbott, George Henry, Stanmore-road, Petersham.
Alcorn, R. G., West Maitland.
Alcorn, S. A., East Maitland.
Allan, George, Summer Hill.
Allen, Lloyd, Parramatta.
Anderson, H. M., Cootamundra.
Andrews, A. Albury.
Armstrong, George, College-street, Sydney.
Armstrong, W. G., Town Hall, Sydney.
Arthur, Richard, M.L.A., Mosman.
Asher, Morris, Darling Point.
Ashton-Shorter, H. L., Petersham.
Aspinall, Jessie, Women's Hospital, Surry Hills.
Aspinall, A. J., Sydney Hospital.
Atcock, M. H., Coolamon.
Ayres, C. (travelling).
Barkas, W. J., Paddington.
Barkas, F. E., Stanmore.
Barnes, E. H., Mosman.
Barrington, Fourness, Macquarie-street, Sydney.
Barton, J. & B. D., Narrabri.

Bassett, W. Pritchard, Bathurst.
Bean, H. K., Wallend.
Beattie, J. A., Liverpool.
*Beeston, J. L., Newcastle.
Beith, Robert, Kisma.
Bell, George, Liverpool-street, Sydney.
Bell, G. L., Waverley.
Bell, H. T., Murwillumbah.
Bell, H. C. R., Coolah.
Bell, R., Coonamble.
Benjafield, V., Union-st., North Sydney.
Bennet, F. A., College-street, Sydney.
Bennetts, H. G., Neutral Bay, Sydney.
Bertram, T. D., Coonamble.
Binney, E. H., Macquarie-street, Sydney.
Birch, C. O., Liverpool.
Blackall, P., Queanbeyan.
Blackburn, C. B., College-street, Sydney.
Blackwood, F. M., Turramurra.
Blaney, Hy. F., Gulgong.
Blaxland, E. G., Burwood.
Bligh, E. A. R., Greenwich-rd., Greenwich.
Blue, A. I., Riverstone.
Boazman, W. H., Parkes.

Bobart, A. O., Nowra.
Boelke, Grace Fairley, Hunter's Hill.
Boelke, P. W., Hunter's Hill.
Bolger, T. F., West-street, Petersham.
Bowker, Charles S., Dungog.
Bowker, E. R. F. S., Stroud.
Bowker, R. Steer, Macquarie-st., Sydney.
Bowker, C. V., College-street, Sydney.
Bowman, Reginald, Parramatta.
Bowman, Alister Stuart, Singleton.
Boyd, P. H., H.M.S. "Prometheus," Farm Cove.
Bracer, A., Lismore.
Bradley, C. H. B., (travelling).
*Brady, Andrew J., Lyons-terrace, Hyde Park, Sydney.
Brandon, A. J. S., Elizabeth-st., Sydney.
Bray, P. Dean (travelling).
Brennand, H. J. W., North Sydney.
Broad, W., Narrandera.
Broadbent, P. L., Forbes.
Broinowski, G. H., Narrandera.
Browne, Claude, Tumut.
Brown, W. S., Parramatta.

Browne, Harold, Summer Hill.
 Bruce, C. W., Enmore.
 Buchanan, Geo. A., Nyngan.
 Bullmore, H. H., Woollahra.
 Burditt, W. F., Glebe.
 Burge, S. B., Waverley.
 Burgess, T. W. W., Wagga Wagga.
 Burkitt, E. H., Dubbo.
 Burkitt, W. A., Handcock, Goulburn.
 Busby, H., Bathurst.
 Button, H. G., Junee.
 Cahill, Arthur C., St. Vincent's Hospital, Sydney.
 Cahill, A. J., Coraki.
 Cahill, J. H., Canowindra.
 Camm, T. C. L., St. Marys.
 Campbell, A. W., Macquarie-st., Sydney.
 Campbell, A., Marrickville.
 Campbell, T. G., Haberfield.
 Capper, H. S., North Sydney.
 Cargill, W. D., Falcon-st., North Sydney.
 Caspersen, E., Wyalong.
 Challands, Frederick, Mudgee.
 Chapman, H. G., Sydney University.
 Chauncey, J. H., Dubbo.
 Chenhall, W. T., Macquarie-street, Sydney.
 Chisholm, W., Macquarie-street, Sydney.
 Clark, G. R. C., Wahroonga.
 Clay, W. R., Hornsby.
 Clifford, J. P., Randwick.
 Clulbe, Charles Percy Barlee, 195 Macquarie-street, Sydney.
 Cobb, J. F., Sofala.
 Coen, Joseph, Lismore.
 Coghlan, Iza, Liverpool-street, Sydney.
 Cohen, Algernon A., Macquarie-st., Sydney.
 Collins, P. J., Woollahra.
 Connolly, T. P., Randwick.
 Connolly, Noel A. W., Drummoyne.
 Connor, F. G., Mullumbimby.
 Cook, H. F., Adelong.
 Cooley, A. G., Botany.
 Cooley, P. G., Redfern.
 Cope, H. Roger, Glen Innes.
 Corbin, A. G., Macquarie-st., Sydney.
 Corie, A. J., Peak Hill.
 Corlette, C. E., Liverpool-st., Sydney.
 Corlis, P. E., Casino.
 Cosh, J. I. C., Ashfield.
 Coutie, W. Henry, Callan Park.
 Cowlishaw, L., Cooma.
 Cox, Harrie, Warren.
 Cox, F. H., Lambton.
 *Crage, W. H., College-street, Sydney.
 Craig, F. Brown, R.P.A. Hospital.
 Craig, Gordon, Newtown.
 Crawley, A. J. C., Newcastle.
 Cribb, A. G., Miltthorpe.
 Crooke, R. W., Cessnock.
 Culpin, Ernest, Kurri Kurri.
 D'Arcy, Constance, Macquarie-st., Sydney.
 Daiah, W. C., Dubbo.
 Dalton, H. M., Murrumburrah.
 Dansey, St. John, R.P.A. Hospital, Camperdown.
 Davidson, A., Callan Park.
 Davidson, L. G., Balmain.
 Davies, R. L., Newtown.
 Davies, T. S., Lockhart.
 Davis, J. S., Randwick.
 Davis, G. C., 167 Liverpool-st., Sydney.
 Deakin, J. E., R.P.A. Hospital.
 De Marco, E., G.P.O., Sydney.
 De R., Bourke.
 *Dick, James Adam, Randwick.
 Dick, Robert, Stockton.
 Diethelm, O. A. A., R.P.A. Hospital.
 Delohery, H. C. M., Forbes.
 Dixon, J. L. B., Bulli.
 Dixon, T. Storie, Macquarie-st., Sydney.
 Dight, W. B., Campbelltown.
 Doak, F. W., Moaman.
 Douglas, John C., Stockton.
 Downey, Edwin, Port Macquarie.
 Dove, Samuel Aloys, Wyalong.
 Dowling, Norman, Young.
 Dunlop, N. J., Newcastle.
 Eames, W. L'E., C.B., Newcastle.
 Edwards, E., 87 Pitt-street, Sydney.
 Edwards, E. D., Glebe.
 Edwards, J. D., Sydney Hospital.
 Elder, A. G. V. (travelling).
 Ellis, L. E., Manila.
 Eworthy, W. H., Penrith.
 English, Jos., Yass.

Ercole, Q., Grenfell.
 Evans, Thos., Macquarie Chambers, Macquarie-street, Sydney.
 Failes, F. G., Coonabarabran.
 Fairfax, E. W., Liverpool-street, Sydney.
 Faithfull, E. L., Liverpool-street, Sydney.
 Farrell, R. M., Quirindi.
 Felchenfeld, E., Hay.
 Ferguson, R., Hunter-street, Newcastle.
 Fiaschi, Thomas H., Macquarie-street, Sydney.
 Fiaschi, Carlo F., Lithgow.
 Fiaschi, Piero, Macquarie-street, Sydney.
 Finckh, A. E. (travelling).
 Finlay, Sinclair, Balmain.
 Fenniss, J. H. S., Goulburn.
 Fisher, Walter, Cessnock.
 Fitzpatrick, Alfred E., Crookwell.
 Fitzpatrick, E. B., Erinvale, Junee.
 Flashman, J. F., University, Sydney.
 Florence, Egbert, Cootamundra.
 Flynn, John, College-street, Sydney.
 Fordyce, H. S., Maclean.
 Foreman, Joseph, Macquarie-st., Sydney.
 Forster, R. C., c/o Mr. Bruck, Castlereagh-street, Sydney.
 Foulds, Basil, Camden.
 Fox, H. E., Kiama.
 Fox, B. A., Rookwood Asylum.
 Franceschi, Carlo, Lismore.
 Freyer, J. K., Orange.
 Frizell, Thomas, Strathfield.
 Fullerton, A. Y., Murrumbundi.
 Furnival, Francis H., Auburn.
 Gaden, F. H. B., Bondi-road, Bondi.
 Gibbes, Alex. E., Lithgow.
 Gibson, D. D., Newtown.
 Gibson, John, Windsor.
 Glichrist, J. J., Royal North Shore Hosp., St. Leonards.
 Gill, J. M., College-street, Sydney.
 Gillies, Sinclair, Macquarie-st., Sydney.
 Giommi, Marco, Trangie.
 Gledden, A. Maitland, College-st., Sydney.
 Goergs, K. B. W., Berry.
 Goldsmid, J. A., Murwillumbah, Tweed R.
 Goldsmith, F., Chatewood.
 Gormley, J. W., Taree, Manning River.
 Graham, C. H., Wellington.
 Graham, W. R., 42 Margaret-st., Sydney.
 Graham, Sir James, Liverpool-st., Sydney.
 Greer, W. W., Kyogle.
 Griffiths, F. G., Killara.
 Griffiths, E. E., Bellingen.
 Grigson, R. E., Muswellbrook.
 Gullett, Lucy, George-street, Bathurst.
 Guthridge, J. S., Murwillumbah.
 Gwynne-Hughes, D., Elizabeth-st., Sydney.
 Hagen, L. K., New Lambton.
 Halcomb, C. D., Muswellbrook.
 Hall, E. C., Parramatta.
 Hall, F. W., College-street, Sydney.
 Hall, G. R. P., Manly.
 Halliday, J. C., Rockdale.
 Hansard, Norman W., Rylestone.
 Harper, Margt., R. Hospital for Women, Paddington.
 Harper, G. C., Temora.
 Harris, H. L., Tamworth.
 Harris, John, Newcastle.
 Harris, L. H. L., Macquarie-st., Sydney.
 Harris, John, Elizabeth-street, Sydney.
 Harris, May, Newcastle.
 Harris, S. H., 60 Alberto Terrace, Darlinghurst.
 Harris, J. S., North Guyra.
 Harris, W. E., Armidale.
 Harbison, J. W., West Maitland.
 Harrison, E. S., Burwood.
 Harvey, L. W., Manly.
 Harvison, W. S., Cooma.
 Harwood, A. J., Adamstown.
 Hawthorne, A. W., Carcoar.
 Heald, S. H., Berrigan.
 Helsham, W. M., Richmond.
 Heggaton, R. D., Murrumburrah.
 Henry, Thos. Jas., Grafton.
 Herring, Ken., West Maitland.
 Hetherington, Henry Budd, Burwood.
 Higgins, F. O., Penrith.
 *Hinder, H. V. C., Ashfield.
 Hill, J. G. W., Gundagai.
 Hill, R. H., Tocumwal.
 Hipeley, P. L., Waverley.
 Hocken, J. P., West Wallsend.

Hodgson, C. R., Dulwich Hill.
 Hoets, A. K., 27 Boyce-street, Glebe.
 Hogg, Kate, Callan Park.
 Holmes, H. G., Wariada.
 Holt, A. C., Braidwood.
 Hood, A. Jarvie, Macquarie-st., Sydney.
 Horstall, A. H., Hamilton.
 Hosking, J. E. F., Deniliquin.
 Howley, E. J., Dudley.
 Howse, Neville R., V.C., Orange.
 Howse, A. O., College-street, Sydney.
 Hughes, M. O'Gorman, "Melrose," Woolahra.
 Hughes, S. H., Macquarie-street, Sydney.
 Hull, Walter, Nowra.
 Hurst, George, Bathurst.
 Humphrey, E. M., Lismore.
 Irwin, W.
 Isblister, J. L. T., North Sydney.
 Jamieson, Sydney, Liverpool-st., Sydney.
 *Jenkins, E. J., Macquarie-st., Sydney.
 Jenner, W. J., Leichhardt.
 Johnson, H. O., Parkes.
 Johnson, A. M., Elizabeth-street, Sydney.
 Johnston, L. P., Macquarie-st., Sydney.
 Jones, Lincoln, Marrickville.
 Jones, R. F., Samarai, British New Guinea.
 Jones, P. S., jun., Glebe.
 Jones, Geo. B. M., Wahroonga.
 Jones, Sir Philip S., Sydney.
 Jones, R. H., Macquarie-street, Sydney.
 Jones, R. T., Ashfield.
 Jones, E. Tudor, Johnston-st., Annandale.
 Kane, F. W., Wollongong.
 Kay, Stuart, Taree.
 Kearney, C. J., Condobolin.
 Kelly, D., North Sydney.
 Kelly, J. J., Macquarie-street, Sydney.
 Kelly, W., Macquarie-street, Sydney.
 Kendall, H. W., Woollahra.
 Kenna, P. J., 2 Lyons-terrace, Liverpool-street, Sydney.
 Kennedy, J. W., Woollahra.
 Kennedy, P., Albury.
 Kerr, John, Wollongong.
 Kerr, A. L., Granville.
 Kerr, W. B., Helensburgh.
 Kiernander, H. B., Q.V.M., Sydney.
 King, A. A., West Maitland.
 Kinross, R. M., Inverell.
 Kirkland, Hugh, Lithgow.
 Kirkland, T. S., Macquarie-st., Sydney.
 Kirkwood, John, Cooma.
 Knaggs, Samuel T. (travelling).
 Lamrock, James, Kogarah.
 Lamrock, L. J., Waverley.
 Lane, Thos., Neutral Bay.
 Lang, W. H., Corowa.
 Langton, W. D., Cleveland-st., Redfern.
 Langton, F. W., Redfern.
 Lawes, C. H. E., Petersham.
 Leahy, W., Wagga Wagga.
 Lee, H. E., Chatswood.
 Lee, T. Wood, Wollongong.
 Lee, H. H., Wollongong.
 Lees, G. J., Orange.
 Le Fevre, J. S., Burrows.
 Leslie, J. R., Wickham.
 Lester, C. E., Mudgee.
 Letcher, H. R., Cobar.
 Lethbridge, H. O., Royal Alexandra Children's Hospital, Camperdown.
 Levy, A. L., 233 Macquarie-street.
 Liddell, F., Union Club, Sydney.
 Lidwill, M. C., Beecroft.
 Linton, E., Wellington.
 Lipscomb, T. W., Leichhardt.
 Litchfield, W. F., Glebe.
 Littlejohn, E. S., Croydon.
 Llewellyn, E. F., Braidwood.
 Lloyd, Henry Sanderson, Hunter's Hill.
 Lloyd-Jones, J. R., Guyra.
 Lovegrove, J. F., Gunning.
 Ludlow, V. E., Waverley.
 Ludowici, E., Cleveland-st., Redfern.
 Luker, Donald, College-street, Sydney.
 *MacCormick, Alex., Macquarie-st., Sydney.
 MacCulloch, Stanthorpe H., College-street, Sydney.
 Macdonald, W. C., Ingham, Queensland.
 Machattie, Thomas Alfred, Bathurst.
 MacInnes, Angus, R.P.A. Hospital.
 Macintosh, A. H., Leura.
 Mackay, G. A., Innes, Lismore.

- Mackellar, the Hon. Charles Kinnaird, M.L.C., Equitable Building, George-street, Sydney.
- Mackenzie, J. A., Tenterfield.
- Mackenzie, A. J., R.P.A. Hospital.
- Mackinnon, R. R. S., North Sydney.
- MacLaurin, the Hon. Sir Henry Normand, M.L.C., Macquarie-street, Sydney.
- MacLaurin, Charles, Macquarie-st., Sydney.
- MacLennan, J. N. E., Young.
- MacLeod, Charles G., Macquarie-st., Sydney.
- MacMaster, J., Summer Hill.
- MacMaster, Donald, North Sydney.
- MacPherson, J., Young.
- Maffey, R. W. H., Singleton.
- Magill, Martin, Moree.
- Magnus, F. D., Macquarie-street, Sydney.
- Maguire, S. Neutral Bay.
- Maher, Chas. H., College-street, Sydney.
- Maher, W. Odillo, Macquarie-st., Sydney.
- *Maitland, H. L., Liverpool-st., Sydney.
- Marano, Vincenzo, Elizabeth-st., Sydney.
- Marks, H. W., Macquarie-street, Sydney.
- Marr, G. W. S., Waverley.
- Marshall, G. A., College-street, Sydney.
- Marshall, Hazlett H., 2 Lyons-terrace, Liverpool-street, Sydney.
- Marshall, Joseph, Bega.
- Martin, T. M., College-street, Sydney.
- Maw, H. S., Tumberumba.
- Mawson, Wm., Campbelltown.
- McClelland, W. C., Newtown.
- McCreadie, J. L. M., Gulgong.
- McCredie, R. W., Picton.
- McDonagh, John M., College-st., Sydney.
- McDonnell, Edward P., Forbes.
- McDouall, H. C., Gladsville.
- McIlroy, J. B., Balmmain.
- McKay, W. J. S., Elizabeth Bay.
- McKnight, C. M., Crana.
- McKell, T. P., Barraba.
- McKillop, R., Goulburn.
- McLean, George, Gunnedah.
- McLeod, James, Hurstville.
- McLeod, James, Rockdale.
- McMaster, R. D., Goulburn.
- McMurray, Wahab, 2 Lyons-terrace, Liverpool-street, Sydney.
- Marsh, H. S., Sydney Hospital.
- Meares, H. L. D., Canowindra.
- Menzies, G. D., Drummoyne.
- Meredith, J. B., Raymond Terrace.
- Michell, R. T., Wallsend.
- Middleton, W., Mittagong.
- Miles, G. E., Rydalmere.
- Millard, R. J., Coast Hospital, Little Bay.
- Mills, Arthur E., Strathfield.
- Moffitt, J. E., Northampton, W.A.
- Moncrieff, E. W., Wagga Wagga.
- Moore, J. B., Bathurst.
- Moran, Herbert M., Newcastle Hospital.
- Morton, Gavin, Gladsville.
- Morton, John, Double Bay.
- Morton, S. W., Goulburn.
- Morton, W. J., Inverell.
- Müller, O. P. H., Lismore.
- Müller, C. A., Elizabeth-street, Sydney.
- Mullins, G. L., Liverpool-street, Sydney.
- Munro, A. Watson, Liverpool-st., Sydney.
- Munro, W. J., Macquarie-street, Sydney.
- Muscio, A., Emmaville.
- Muskett, Philip Edward, 143 Elizabeth-street, Sydney.
- Nankervis, A. W., Tamworth.
- Nash, Hon. J. B., M.L.C., Macquarie-st., Sydney.
- Neale, Alfred, Elizabeth-street, Sydney.
- Neumann, E. Wilcannia.
- Newman, E. L., Casino.
- *Newmarch, Bernard James, North Sydney.
- Newton, W. G. T., Katoomba.
- Nickson, W. J. R., Newcastle.
- Nolan, H. R., Macquarie-street, Sydney.
- Norrie, Andrew, Liverpool-st., Sydney.
- Oborn, H. W., Kangaroo Valley.
- Olive, W. J., Braidwood.
- Olver, W. R., Chatswood.
- O'Connor, A., Woonoona.
- O'Hara, A. A., Bayswater-rd., Darlinghurst.
- O'Keefe, J. J., Kogarah.
- O'Neill, Gregory L., College-st., Sydney.
- Oram, Arthur M., Macquarie-st., Sydney.
- Osborne, J. K.
- O'Reilly, Susannah A., Pymble.
- O'Reilly, Walter W. Joseph, Liverpool-street, Sydney.
- Page, E., South Grafton.
- Palmer, A. A., Elizabeth-st., Sydney.
- Palmer, H. W., Coast Hospital, Little Bay.
- Park, A. J., Narrabri.
- Park, Joseph, Clarence Siding.
- Parker, Arthur Frederick, Lismore.
- Parker, Joseph, Blackheath.
- Parkinson, T. P., R.P.A. Hospital.
- Parramore, G. W., Hillgrove.
- Parry L. Davenport, Picton.
- Paton, J. Scott, Dudley.
- Paton, Robert Thompson, Dawes Point, Sydney.
- Paul, Geo. A., Wolseley-rd., Point Piper.
- Pawlett, T. L., Crookwell.
- Peet, Henry, Gilgandra.
- Pentland, Alex., Singleton.
- Perkins, A. E., Marrickville.
- Perkins, Richard, Morpeth.
- Phillips, A. B., Grafton.
- Phippe, J. H., Mosman.
- Plomley, M. J., Narromine.
- Poate, H. R. G., R.P.A. Hospital.
- Pockley, Eric, Summer Hill.
- *Pockley, F. Antill, Macquarie-street, Sydney.
- Pope, R. J., Macquarie-street, Sydney.
- Purser, Cecil, Lewisham.
- Pym, C. B., Elizabeth-street, Sydney.
- Quaife, Frederick Harrison, Woollahra.
- Read, W. H., Wairoonga.
- *Read, Clarence, Chatswood.
- Read, George, Watson's Bay.
- Reading, Richard Fairfax, 151 Macquarie-street, Sydney.
- Rees, W. Llewellyn, Chalmers-st., Sydney.
- Reddall, O. H., Randwick.
- Reid, C. W., Watson's Bay.
- Reiach, J., Molong.
- *Rennie, G. E., Macquarie-st., Sydney.
- Rice, H. R., Lithgow.
- Roberts, S.
- Roberts, L. W., Cowra.
- Robertson, Alex., Tarawa, Gilbert Islands.
- Robinson, A. C., Jerilderie.
- Robertson, E. M., Hay.
- Robinson, W. Charles, Bondi.
- Roseby, E. R., Marrickville.
- Ross, J. McBain, Broken Hill.
- Ross, A. P., Wee Waa.
- Ross, C., Macquarie-street, Sydney.
- Roth, R. E., Liverpool-st., Sydney.
- Russell, R. U., Newcastle.
- Rutherford, A. H., Casino.
- Rygate, A. M., Wellington.
- Rygate, R. E., Grenfell.
- Sadler, H. F., Weston, via West Maitland.
- Salter, A. E., Homebush.
- Samuelson, G. S., Bangalow, R.R.
- Sanderson, J. M., Ballina.
- Sandes, F. P., City-road, Sydney.
- Saunders, J. H., Box 1511, G.P.O.
- Sawkins, F. J. T., Macquarie-st., Sydney.
- Savage, W. V., "Murong," Waverley.
- Schalit, M. A., Delegate.
- Schlink, H. H., R.P.A. Hospital.
- Schuett, Edwin, Germany.
- Schuette, R., Merriwa.
- Scott, A., Dapto.
- Scott, C. H., Armidale.
- Scott, H. J. H., Scone.
- Scot-Skirving, R., Elizabeth-st., Sydney.
- Seldon, W., Annandale.
- Sexton, J. P., Tamworth.
- Shand, J. Cappie, North Sydney.
- Sharp, W. Ramsay, Candel.
- Shaw, F. C. S., Wyalong.
- Sheldon, S., Macquarie-street, Sydney.
- Sheldon, H., Granville.
- Shellshear, Cyril (travelling).
- Shellshear, J. L., Sydney Hospital.
- Shepherd, Cyril, Bayswater-road, Darlinghurst.
- Shirlow, S. S., Balmmain.
- Shortt, W., Corowa.
- Sinclair, Eric, Wairoonga.
- Sinclair, W. M., Wentworth Falls.
- Sinclair, T. W., Town Hall, Sydney.
- Simpson, Macneill, College-street, Sydney.
- Smith, G. H. W., Oxford-st., Paddington.
- Smith, S. A., Glebe-road, Glebe.
- Smith, P. E. W., Oxford-st., Paddington.
- Smith, V. A., Grafton.
- Smith, W. G. C., Ryde.
- Spark, John, Katoomba.
- Spencer, Walter, Edgeware-road, Enmore.
- Sproule, Robt., Tenterfield.
- Sproule, Wm., Minmi.
- Stacy, H. S., College-st., Sydney.
- Stanley, G. P., Tamworth.
- Stephen, E. H. M., Ashfield.
- Stephens, H. Z., Grafton.
- Stephens, Samuel, Walcha.
- Stevenson, F. C., Moss Vale.
- Stewart, Marie, Lismore.
- Stiles, B. T., Newtown.
- Stillwell, Effie, Duchess of Teck Hospital, Patna, India.
- Stoker, H., Wagga Wagga.
- Stokes, Edward S., W. & S. Board, Sydney.
- Stuart, Thomas Peter Anderson, Professor, Edgecliff.
- Stuckey, F. S., Inverell.
- Studdy, W. B., North Sydney.
- Sturges, F., Wellington.
- Tange, F. S., Mosman.
- Terrey, Hedley, Sydney.
- Thane, E. H., Gordon.
- Thane, P. T., Yass.
- Thomas, G. B., Ashfield.
- Thomas, David, Manly.
- Thompson, J. Ashburton, Health Department, Sydney.
- Thring, E. T., Macquarie-street, Sydney.
- Throsby, H., Bowral.
- Tidswell, Frank, Health Department, Sydney.
- Tilley, W. J.
- *Todd, Robert H., Phillip-street, Sydney.
- Tomlins, W. H., Alstonville, R.R.
- Tomlinson, W. R., Narromine.
- Trall, Mark Windeyer, Burwood.
- Treloar, R. H., New South Head road, Double Bay.
- Trindall, Richard B., Newtown.
- Turkington, H., Paul-street, Waverley.
- Vallack, A. Styles, Bowral.
- Vause, Arthur John, Tempe, Cook's River.
- Veech, M., Molong.
- Vernon, G. Hunter, Yerranderie.
- Vernon, Murray M., Tingha.
- Vickers, Wilfred, R.P.A. Hospital.
- Wade, T. F., Wollongong.
- Wade, R. B., Stanmore-road, Sydney.
- Walch, C. C., Corowa.
- Wall, A. Percy, Randwick.
- Wallace, D., Coast Hospital, Little Bay.
- Walley, T. B., Tamworth.
- Warren, H. Guy, Macquarie-st., Sydney.
- Watkins, S. C., Hornsby.
- Watson, Charles Russell, Newtown.
- Watson, J. W., West Wallsend.
- Watt, J. A., Tenterfield.
- Watt, G., Orange.
- Waugh, R. A., Parramatta.
- Welch, St. V., River-rd., North Sydney.
- Welsh, D. A., Professor, Sydney University.
- West, F. W., Camden.
- Wherrett, E. A. R., North Shore Hospital, North Sydney.
- Wigan, George Armidale.
- Wilkinson, W. Camac, Macquarie-street, Sydney.
- Will, A. Murray, Macquarie-st., Sydney.
- Williams, F. B., Hillston.
- Willis, H. A. L., Walgett.
- Willis, S. C., Board of Health, Sydney.
- Wilson, J. H., Orange.
- Wilson, J. T., Professor, Sydney University.
- Windeyer, J. C., College-street, Sydney.
- Withers, O. S. B., Stanmore.
- Wood, Percy Moore, Liverpool-rd., Ashfield.
- Woods, William Cleaver, Albury.
- Woodward, G. P.
- Woodward, E. A., Arncliffe.
- Woolnough, R. E., Kempsey.
- Worrall, Ralph, Macquarie-st., Sydney.
- Wright, T. N., Stroud.
- Wrigley, F. H., Glen Innes.
- Wylie, Mary W., 443 Riley-st., Surry Hills.
- Young, H. C. Taylor, Macquarie-st., Sydney.
- Young, R. W., Milton.
- Zlotkowski, F., 201 Macquarie-st., Sydney.

AUSTRALASIAN MEDICAL GAZETTE

No. 318.

SYDNEY, MARCH 20TH, 1908.

VOL. XXVII., No. 3.

THE OPERATIVE TREATMENT OF RETRO-DISPLACEMENTS OF THE UTERUS.

By Fourness Barrington, M.B. (Edin.), F.R.C.S. (Eng.), Surgeon Lewisham Hospital for Women, Assistant Gynaecological Surgeon Royal Prince Alfred Hospital, Sydney.

THERE are few subjects in operative gynaecology on which more has been written in the last decade than the surgical treatment of backward displacements of the uterus. As each successive observer sets forth facts after his own fashion the subject comes to be presented in every possible light. Thus it is, though it may be in the humblest way, each hopes to contribute to a better understanding of so important and comprehensive a subject.

Treatment by pessaries.—The days of the pessary in the treatment of backward displacement of the uterus are numbered. At best a pessary is a splint, very rarely proves curative, and is a potent factor in inducing microbic infection. Not only does a pessary fail to restore the sustaining power of the uterine ligaments, but it does harm by stretching, through persistent pressure, the utero-sacral ligaments, which are important normal ligamentous supports. Pessary treatment of single women has nothing to commend it, and should be condemned without reservation of any kind. The use of the pessary should be restricted to those retro-deviations in which it is a temporary measure only, *e.g.*, in the early months of gravidity and in recent puerperal cases.

Preliminaries to operative rectification of the displacement.—As there is invariably a resultant endometritis from the displacement, the uterus must always be curetted. The cervix may need repair by trachelorrhaphy or amputation. Any marked defect in the musculo-fascial framework of the sacral segment of the pelvic floor from the traumatism of labour must be repaired in all cases, so as to restore its supporting function, no matter what operation is selected to rectify the position of the uterus. These preliminary operations are absolutely essential if permanent good results are to be obtained. The procedure necessary to replace the uterus is carried out as a final step.

Operative rectification of the displacement.—

There seems to be a tendency for a surgeon to wed himself to one particular operation from choice and to do this to the exclusion of others. There is a proneness, too, for an enthusiastic advocacy of one operation, which is then suddenly dropped, and some other procedure practised with like enthusiasm. Some practice ventro-fixation or ventro-suspension, others shortening of the round ligaments, intra-abdominally or extra-peritoneally, and perform their own favoured operation on every possible case. I venture to maintain that each of the operations named has its own particular sphere of usefulness. The selection of the particular operation will depend on the pathological conditions present in each individual case. In forming a decision as to the pathological conditions present on which the choice of operation performed depends, one is guided—

(1) By the previous history of the case, especially as to the occurrence of pelvic infection following abortion, labour or gonorrhoea. Careful enquiry should always be made for a history of this nature, for such being definitely elicited means that some intra-pelvic pathological change remains as a result.

(2) By the actual condition of the pelvic organs as ascertained by a careful bimanual examination, using the unaided hands, of each individual case. This should always be repeated with every care under the anæsthetic immediately before operation, and may corroborate or otherwise the procedure previously planned. From a clinical and operative standpoint the cases may be divided into two groups :

- (a) The displacement is uncomplicated by any pathological intra-pelvic condition. The abdomen does not need to be opened to rectify the displacement.
- (b) The displacement is complicated by intra-pelvic pathological changes, which may be roughly subdivided, as they merge imperceptibly into (i.) minor and (ii.) major. The abdomen must be opened to correct the retro-deviation.

(3) By the post-operative history, as to the possibility or otherwise of the patient con-

tinuing her reproductive career. Can the patient become pregnant or is this impossible as the result of the pathological conditions present and our consequent operative interference?

Coming to the question of the selection of the particular operative procedure, we may take it as a guiding axiom that the aim of every method for the rectification of a uterine retro-deviation should be to imitate naturally existing conditions and as nearly as possible to utilise natural forces (*i.e.*, normal ligamentous supports) in the maintenance of corrected positions.

Operative measures may for descriptive purposes be divided as applying to the two groups of cases already named:

Group 1.—The displacement is uncomplicated by any intra-pelvic pathological change. The uterus is found freely movable, coming up on bimanual manipulation into its normal position of complete anteversion and slight ante-flexion, there is no disease and no fixity of the appendages, and there is no history of a previous pelvic infection.

In such cases, inguinal shortening of the round ligaments (a modification of Alexander's operation) is the best procedure. Especially suitable for this operation are:

(a) Cases of retroversio-flexio in virgins and nulliparous married women conforming precisely to the aforementioned conditions; in these the operation is ideal, as it cures the pelvic symptoms in both, and in the married, often the sterility.

(b) Cases in parous women, with the uterus enlarged, retro-displaced and freely movable (*i.e.*, there are no signs of infective salpingitis) with a deficient pelvic floor, sometimes described as the first stage of prolapse. In such, when combined with a suitable plastic operation, the results are excellent.

In carrying out inguinal shortening of the round ligaments, if the results are to be permanently satisfactory, the following points in technique must be attended to:—

(1) The round ligaments must be efficiently shortened. To adequately shorten the round ligaments, the peritoneum in the shape of an inverted cone must be exposed and stripped back from each ligament, and to effect this the inguinal canals must be opened.

(2) The round ligaments must be fixed to their normal course with hernia-proof closure of the inguinal canals, effected by interrupted absorbable sutures. These sutures traverse the same structures as in Bassini's operation for the radical cure of hernia, each in addition

piercing the round ligament, especial care being taken that the uppermost suture penetrates the round ligament and the margins of the internal abdominal ring as high as possible. It is easy to shorten the round ligaments too little; it is impossible to over-shorten them by this method.

(3) The loop representing the slack of each ligament should be preserved, placed external to the aponeurosis, and the loop sutured to the skin above the upper end of the incision, the fixation knot being on the skin surface.

Inguinal shortening of the round ligaments is the least dangerous of all operations for uncomplicated retro-displacements, for there should be no mortality. It is anatomically sound, for the ligaments are secured in their normal course, and when the operation is completed the parts are in the position in which nature placed them, and it is reasonable to infer that the nearer we approach the normal the more correct is our surgery. It is physiologically sound, for it utilises the natural supports of the uterus, respects its normal mobility and thereby allows the organ to adapt itself to its various functions—the successful incubation and expulsion of the fertilised ovum. Finally, the results are lasting, even after the strain of several full-time pregnancies, and in its proper field the operation may be said to be ideal.

My own personal experience of the operation, from April, 1898, to date, concerns 211 cases—single women, 58; married, 153—in 49 of which plastics were superadded. Mortality, nil; wound suppuration, 8, one badly on both sides, one badly on one side, the remaining six slight, two being deferred for some weeks. I have never failed to find both ligaments in the inguinal canals. One patient developed a left-sided femoral thrombophlebitis, but the remainder were up on the eighteenth day. Pregnancy has followed on nine occasions to my knowledge, and in no instance has there been any trouble during parturition.

Group 2.—The displacement is complicated by intra-pelvic pathological conditions, which may be roughly subdivided for purposes of operative selection into minor and major changes.

Sub-group 1.—There is some minor intra-pelvic pathological condition present by which the mobility of the uterus is impaired in varying degrees, but it is not fixed—*e.g.*, light pelvic adhesions, small ovarian cyst, hydrosalpinx, etc. There are certain cases

where the uterus comes up into fair position, but it sags back at once, and there is reasonable doubt as to the presence of pelvic adhesions. If pelvic adhesions are present, inguinal shortening of the round ligaments will do no permanent good, unless these adhesions are first freed. In doubtful cases of this kind—and especially if there is a definite history of a previous pelvic infection—it is advisable to open the abdomen.

After the necessary preliminaries, a valuable procedure in the cases outlined is to open the abdomen and shorten the round ligaments in the inguinal canals, through a single transverse incision, as recommended by Reuben Peterson as follows:—The patient being in Trendelenburg's position, a transverse incision $2\frac{1}{2}$ inches long is made through the suprapubic fat down to the fascia, slightly above the level of the pubic spines and the flap of skin raised and retracted well upwards. The abdomen is opened vertically through the sheath of one rectus so as to allow the execution of the necessary intra-abdominal work. The round ligaments are now shortened after opening the inguinal canals through the lateral angles of the original incision. The uterus is seen to be held by the shortened round ligaments in good position before the abdomen is closed in layers, and are subsequently best fixed in the inguinal canals as previously described. The transverse incision is closed. More room can if necessary be obtained by making the incision crescentic instead of straight. While much can be done through this incision, it has a limited range of application. It is unsuitable for dealing with advanced tubal disease or dense adhesions, which can be more efficiently treated through a mesial abdominal incision.

When the abdomen has been opened mesially, and the patient is left in a possible reproductive career, we should endeavour to closely imitate the normal conditions and employ shortened natural uterine ligaments for uterine support. We know that the round ligaments grow *pari passu* with the developing uterus in gestation and that they return to their normal condition after pregnancy. Therefore the uterus should be supported by these ligaments whenever the pelvic organs are so left that there is a possibility of pregnancy occurring.

While shortening of the round ligaments in the inguinal canals in the manner described is the ideal operation when suitable,

in the more complicated retro-displacements these ligaments may be shortened by one of the various intra-abdominal operations that have been devised, after mesial section. These are too numerous to be individualised, but the procedures may be arranged as follow:—

1. A loop of each round ligament is secured by temporary ligature in the abdomen and pulled—

(a) obliquely through the abdominal wall and fixed to the aponeurosis;

(b) sub-aponeurotically through each internal abdominal ring to the middle line and there fixed to the aponeurosis and to one another.

2. By folding each round ligament in various ways.

3. By carrying a loop of each round ligament through the broad ligament and securing the loop to the uterine wall.

These methods utilise natural supports, respect the natural mobility of the uterus, and are physiologically correct.

Further, the round ligaments when shortened allow the utero-sacral ligaments, which are probably the main ligamentary supports of the uterus, to regain their tone. When the utero-sacral ligaments are moderately stretched they do not need shortening, because they recover their tone, owing to the strain on them being relieved on replacement of the uterus by round ligament shortening. When the utero-sacral ligaments are found on abdominal section to be unusually long, so as to allow the cervix to hang nearer to the pubes than it should, it is advisable to shorten them intra-abdominally, thereby swinging the cervix nearer to the hollow of the sacrum, in addition to the round ligament shortening. Any of the methods of shortening the round ligaments named should always be adopted in preference to direct uterine suspension or fixation when pregnancy may follow.

I would emphasise this point: To fix a movable organ like the uterus, whose power of functioning depends on that mobility, cannot be classed as a scientific procedure if there is any possibility of pregnancy ensuing. To leave a pelvis in the hope that the uterus will functionate and then substitute a pathological condition to fix the organ so that it cannot functionate properly, is not sound. Ventro-suspension is a departure from what should be a governing axiom—"Imitate Nature's methods and utilise Nature's forces." The most carefully planned suspensory opera-

tion may from a mild infection result in a fixation, so that should pregnancy occur the dangers of abortion, miscarriage and complicated labour have to be faced. These artificial fundal ligaments are pathological, composed of cicatricial tissue, inconstant in length and thickness, and, therefore, in sustaining power. If gestation goes to term, the false ligament is so permanently stretched as to outlive its usefulness, and the uterus must and actually does sink back to its former malposition. The results of my own cases and the observation of those of others have forced me to these conclusions. If this paper serves to stay one hand from direct fixation or suspension of the uterus in a child-bearing woman, it will not have been written in vain. For myself I must plead guilty to having performed ventro-suspension 28 times in the past on women who were left capable of child-bearing, but I can safely add that nothing will ever induce me to do so under such circumstances again. The results of shortened natural ligaments are less dangerous and more permanent in the event of gestation subsequently ensuing, and as the round ligaments share in the evolution of the uterus during and in its involution after pregnancy, such operations are based on a sound general principle.

Sub-group 2.—There is extensive pelvic disease; the retro-displaced uterus and its appendages are fixed by adhesions, more or less dense, according to the virulence of a previous infective salpingitis and its chronicity.

After curetting the uterus, the abdomen is opened in the middle line.

Ventro-suspension and ventro-fixation are to my mind only justifiable in backward displacements or prolapse after the child-bearing period or in women who are rendered sterile by disease, i.e., where both tubes have been destroyed by infective salpingitis, and consequently need removal. Here there is no need for the uterus to be free to enlarge, and it is better to fix or poise the uterus in normal position than allow it to become fixed by adhesions in an abnormal one. In removal of the appendages for inflammatory disease, where raw surfaces are left on the upper aspect of the pelvic floor, the uterus should always be ventro-suspended, whether previously displaced or not. It is purposely more or less fixed in an appropriately normal position to obviate its fixation in an abnormal one, and should invariably be done.

In some cases of retro-displacement of the uterus, where it is much damaged after separa-

tion of hopeless disease of the appendages, it is advisable to remove the uterus supra-vaginally with the appendages.

It is always desirable to leave a healthy ovary if possible, and the younger the woman the more necessary does this become. The omission symptoms from the removal of both ovaries are very genuine. A healthy ovary should be sutured to the peritoneum above the pelvic brim or to the side of the uterus, or the utero-ovarian ligament shortened. If left, the ovary must be so placed that it will not subsequently be embedded in adhesions. If simply dropped, the ovary adheres to the raw surface from which it or its tube has been enucleated and becomes buried in fresh adhesions; the maturing Graafian follicles cannot rupture, and from periodic menstrual pain the pain becomes so constant as to demand further operative interference.

For a similar reason it is sound practice to remove the vermiform appendix in every case, when the condition of the patient permits, when there is a solution of continuity of the peritoneum on the right side of the pelvis, unless the appendix is post-cæcal in position and perfectly normal. If this is not done the appendix is very apt to become adherent to the most carefully planned suture line, and be a source of subsequent trouble.

The time allotted does not permit me to give illustrative cases of the various misadventures that may follow operations named in this paper, but I can substantiate every one of them from patients that have come under my own care.

Finally, permit me to add that operations for retro-displacements of the uterus should be chosen and planned so as to have as low a mortality as possible coupled with a high percentage of permanent cures, for the prime object of all surgery should be to permanently cure the patient.

(Read at the Semi-Annual Meeting of the Western Medical Association, Bathurst, November, 1907.)

Design for Children's Hospital, Hobart.

The special committee appointed to adjudicate on the designs sent in for the proposed children's hospital have recommended that one prepared by Mr. Rudolph Koch, of Hobart, should be awarded the first prize in the competition. The recommendation was adopted unanimously. The successful competitor's design provides for a hospital of 24 beds, having two wards of ten beds, one of three, and an isolation ward containing one bed. Mr. Koch has had previous experience in the designing of hospitals, having been associated with his father in preparing a design for the new Melbourne Hospital, which was awarded the first premium.

SOME BRITISH AND FOREIGN CLINICS.

By Ralph Worrall, M.D., Honorary Gynæcologist
to Sydney Hospital.

(Continued from p. 32, January No. of
the A.M. Gazette.)

Edinburgh.—Although all the surgeons were very kind, there was apparently very little work going on. I was there four days and saw Mr. Caird do a pelvic hydatid (retro-peritoneal). He attempted to extirpate the ectocyst, but I do not know if he succeeded, as I had to leave before the operation had been completed.

Dr. Haultain showed me over the Deaconesses Hospital, but there were no operations.

Mr. Scot Skirving kindly asked me to see him do two cases of inguinal hernia in an infant and a boy. The sac was transfixed with a sharp needle carrying iodised catgut and tied. It was then anchored by the ligatures being passed through the muscular and aponeurotic structures.

Liverpool—Hospital for Women, Shaw-street.—Drs. Briggs, Gemmel and Wallace are the surgeons. They all use the same handled right-angled needle, sharp pointed, with the eye near the point. The eye is threaded after the needle has been passed. It is used for everything, even continuous suturing. All pedicles are secured by continuous suturing with this needle.

Dr. Gemmel did a complete rupture of the perineum by flap-splitting and then bringing the raw surfaces into apposition with three tiers of continuous catgut sutures. A lacerated cervix in the same patient was not operated upon.

Professor Briggs showed me over his splendid museum of gynæcology and obstetrics in Liverpool University. There are specimens of almost every pathological condition, classified and arranged on narrow shelves, with avenues between, down the centre of the long room. On the walls are paintings on folding frames all done by the same artist from specimens and preparations collected by Professor Briggs during the past 23 years. Students can here study with great facility, say, the changes and degenerations to which uterine myomatæ are liable, or the varieties and complications of ectopic gestation, or any other subject in gynæcology, so that learning is here really made easy. In obstetrics the students can come whenever they feel disposed and practice the various procedures with real fetuses (preserved by injection with

formaline and glycerine) and perfect models of the female pelvis. Twice weekly the tutor demonstrates the specimens and operations.

Prof. Briggs did abdominal section for a large thinned-wall ovarian cyst which had been tapped outside four months previously. He makes a small incision, incises the cyst and ignores the escape of cyst contents into the peritoneal cavity. He used a small glass drainage tube in the lower angle of the wound, but not long enough to reach to the bottom of the pelvis. The parietal wound is brought together in layers by continuous catgut suturing. Retractors are never used by Prof. Briggs. Catgut is boiled in xylol and preserved in alcohol.

Second Case.—Ventre-fixation by lacing anterior uterine surface to parietes by continuous catgut suturing.

Third Case.—Chronic Salpingitis.

Dr. Gemmel did subtotal hysterectomy for myoma, cupping the cervix and uniting the cut surfaces with continuous catgut. The vessels were secured by lacing with continuous catgut and the sharp needle; one vessel wounded in doing this. No retractors used. Parietal wound closed in layers with continuous catgut.

Second Case.—Curettage for incomplete abortion. Uterine cavity wiped out, not flushed.

Third Case.—Ventre-suspension by Wallace's method of uniting the peritoneum of bladder to anterior parietes so as to form a vertical septum in the utero-vesical space, as described in the *Journal of Obs. and Gy. of the British Empire* for August, 1907.

Dr. Wallace.—First Case.—Abdominal section by Lenander's incision for intrapelvic abscess below the appendages, which were normal. Appendix not examined, as abscess more on left than right. No history of bowel ulceration. Drainage with a rubber tube from Douglas' pouch to beyond vulva, and a glass drainage tube with a wick through the left rectus for suprapubic drainage. This tube did not quite reach to bottom of pelvis. The wound was closed in layers with continuous catgut to check the oozing which follows Lenander's incision from the separation between rectus and aponeurosis; a sandbag weighing 8 lb. is placed over the dressings.

Second Case.—Hæmatosalpinx due to ectopic gestation. A subcuticular silver wire suture was used for the skin union.

Third Case.—Pfannnelstein's curved transverse incision for abdominal section for retroversion with fixation. Ventro-fixation by Dr. Wallace's method already referred to was done. There is a dead space above peritoneum in the lower angle of the wound after this operation, which is filled with saline solution. A pessary is inserted.

Dr. Wallace also did vaginal hysterectomy in a patient *æt.* 67, for cancer of the cervix, using Schuchardt's lateral incision. Only three months' history, but the disease was very extensive, involving the bladder, a portion of which was resected, and more would have been but for the danger to the ureter. The uterus was delivered in anteversion, and the broad ligaments ligated from above down with a continuous catgut suture. The peritoneum was united to vaginal mucosa, but no attempt was made to close or diminish the large opening in the vaginal vault. The intestines were prevented from prolapsing by a gauze plug.

Royal Infirmary, Liverpool.—Dr. Grimsdale did abdominal section for mobile retroversion of the uterus by drawing a loop of each round ligament through all the structures of the abdominal wall, except skin on each side of the median incision, and suturing the loops to each other and to the aponeurosis. The parietal wound was closed by through-and-through 'silkworm' suture, passed with a straight Hagedorn's needle from within out; a continuous silk suture united the aponeurosis, and a subcuticular the skin. Silk is used for ligatures. Dr. G. stands on right of patient in Trendelenburg's position.

Dr. G. also did subtotal hysterectomy for myoma in a patient *æt.* 45, removing both appendages. The cervix was cut straight across and not sutured. A large ovarian cyst was removed in another patient. In another a parametric abscess had made a communication between bladder and rectum. The openings in these viscera were sutured up, and gauze drainage made through the lower angle of the parietal wound as well as P.V.

Dr. Thelwall Thomas removed a mass of sarcomatous glands from the axilla of a woman whose scapula he had partially removed two years previously for periosteal sarcoma. No sign of recurrence at site of original growth; a small glass drainage tube was used; silk ligatures; Hagedorn's needles held in fingers. He also did inguinal colotomy for inoperable cancer of the rectum. The loop of gut was brought out and inserted

under the skin towards the middle line, where it was brought through so as to form a valve opening. A perfect spur was formed by suturing together the sides of the loop.

I spent a day in Liverpool with my old friend and colleague, Dr. Robert Jones. At his private rooms I met Dr. Gibney, of New York, and Dr. Forbes, of Montreal. We had a great treat in seeing Dr. Jones' method of case taking and recording, and his marvellous dexterity in treatment. He took us in his motor to see the new country hospital for children, containing 200 beds, at Haswell, nine miles from Liverpool, overlooking the Dee. Both he and Dr. Gibney consider a children's hospital in the city to be a mistake. There should only be in the city an outpatient department and dépôt for the purpose of feeding the country hospital. We saw Dr. Jones operate in two cases of hallux valgus by excising a piece of the head of the bone, preserving the sesamoids and bringing them over like a curtain, with buried catgut. The dressing was iodoform in spirit spread on gauze and bandage to keep the toe inverted. The wound is not dressed again for 10 days, when a suitable splint is applied. In rheumatoid arthritis, Dr. J. believes it is sometimes wise to excise the joints.

In talipes, etc., before correcting the bony deformity by excision, the endeavour is made by manipulation, etc., to bring the muscles as near to normal as possible. Dr. J. uses catgut for ligatures. His aseptic technique is very thorough. At his private clinic there are about a dozen waiting-rooms for the accommodation during the day of between 30 and 40 patients, who are all classified in the different rooms by the secretary and nurse. Skiagrams are taken and recorded in almost every case. Pitch plaster spread on brown paper is largely used for correcting deformities. Dr. W. Mayo, of Rochester, told me Dr. Jones' clinic was the most interesting thing he had seen in his travels.

On my return to London I saw Mr. Handley at the Middlesex remove the right ovary and tube and omentum for cancer. Probably the tube was the primary focus. He also did appendicostomy for constipation and left-sided pain. The cæcum is pulled by the appendix right up to the parietes; in a few days the tube is cut off and injections given through the opening into the cæcum. Mr. Handley has done some important original work on the spread of cancer of the mamma along the deep fascia and lymphatics, and has pointed out its special tendency to extend

down towards the umbilicus along the anterior sheath of the rectus, and thus infect the stomach. In the skin the spread is equally in all directions and is not specially marked. It is reached by an efflorescence from the deeper parts. I saw him amputate a breast in accordance with the above teaching. The incision was circular, with a diameter of four inches; it was then extended into axilla and downwards over the rectus, four inches of the anterior sheath of which was excised.

In Dublin, where there are 36 hospitals for a population of under half a million, I visited the Rotunda, of which Dr. Tweedy is now master. There are between 30 and 40 students, male and female, in the class, most of whom are qualified, hailing from almost all parts of the world. The teaching, especially the obstetric, is very good and practical. Private practice is always borne in mind, and nothing is used and no technique taught which would be impossible in a private house. Pupils pay 15 guineas for a three months' course. After this they sometimes remain as clinical assistants, when they are allowed to do small operations under the supervision of the master. The standard of morbidity in puerperal cases is "that the temperature shall be above 99 twice in one day during the eight days which the patient remains in the hospital after delivery." The curette is not used in septic conditions. Dr. Tweedy is content with wiping over the endometrium with formaline solution. In gynaecology curettage is generally performed without anaesthesia, a tangle tent having been introduced the night before; slight further dilation is made at the time of curettage with Hegar's dilators. Endocervicitis is treated by pyroligneous acid on a Bandl's probe. Pessaries are largely used in displacements. In making bimanual examinations the cervix is drawn down with a volsellum to allow of palpation of the pedicle of a cyst, etc. The importance of visual examination of the vulva is taught. A Guyot examining table is used, and the patient is examined in the dorsal position. Anaesthesia is freely used for examination purposes. All waterproof sheets, etc., after being scrubbed with soap and water, are placed in a cistern containing 1 in 2000 biniodide solution, which is allowed after 12 hours to run out of a tap at the bottom of the cistern over the terazzo floors of the wards. The floor of the theatre is kept wet with solution, so that goloshes are necessary. The aseptic technique is very good. Dr. Tweedy removed

a large epithelioma of the vulva in such a way as to make primary union of the cut surfaces possible. He also did a difficult ovariectomy, making Pfannenstiel's transverse incision. He uses silk for ligatures, sharp needles and large pedicle needle. The uterus was amputated, as the cyst was bilateral and the removal difficult. Flushing was resorted to, as some of the viscid contents of the cyst escaped into the peritoneal cavity. A gauze drain was used, brought out in lower angle of wound.

At Dr. Tweedy's request I operated upon a young woman with retroversion in order to demonstrate to the class my method of doing Alexander's operation.

At the Adelaide Hospital, Dublin, Sir Wm. Sungly, who is a frequent visitor to foreign climes and whose wide knowledge is reflected in his work, did two total hysterectomies for myoma, by Doyen's method, occupying about 40 minutes for each. Catgut ligatures passed by sharp needles held in Martin's holder. All the structures in the vault are brought together by the purse-string suture, reinforced by two or three transverse. No drain. Parietal wound closed in layers with continuous catgut, subcuticular of silkworm gut for the skin. Sir Wm. Sungly also did a vaginal fixation for retroversion with silk sutures.

At Sir Patrick Dunn's Hospital I saw Mr. Edward Taylor do abdominal section for tubercular peritonitis. No attempt made to remove the very adherent appendix and appendages. Flushing was practised. Linen thread for ligatures; catgut for layering the parietal wound; subcuticular of silkworm gut for the skin.

At St. Vincent's Hospital Mr. Alfred Smith is gynaecologist. He does subtotal hysterectomy, cuts cervix straight across without suturing, closes parietal wound with one continuous suture of silk; uses pessaries largely for retro-displacements during child-bearing period, hysteropexy after; tries to avoid operating in pus cases for a year after initial attack of pelvic-peritonitis, but if necessary in the meantime, evacuates the pus p.v.

At the same hospital Mr. McArdle operated on an urgent case sent in, while I was in the hospital, as "acute intestinal obstruction." After not more than one minute's examination and questioning he diagnosed malignant annular stricture of the sigmoid; the patient was operated upon straight away and the diagnosis found to be correct. A loop of

ilium was firmly adherent to the growth and extremely congested. Dr. McA. thought it too damaged to leave, and therefore resected about nine inches, using Murphy's button, in the use of which he is an enthusiast. The sigmoid was also excised and the left appendage adherent to it; Murphy's button again used, but unfortunately a fresh supply of those ordered had not come to hand, and a smaller button had to be used for the sigmoid than that for the ilium. Dr. McA., however, said this had once before occurred, and he had eventually saved the patient by cutting down on the lower anastomosis and removing the larger upper button which had wedged there. The distended intestines were not relieved before closing the abdomen.

At Mr. Moynihan's kind invitation I visited Leeds again and met Dr. Elsasser, Kocher's chief assistant. In the private hospital I saw a cholecystectomy for an oedematous thickened gall-bladder full of pea-sized stones, then an old inguinal hernia in which the sac was ligatured after being drawn down. It was allowed to fly back after section.

At the Infirmary I saw a gastro-enterostomy; in the third row of sutures C. Mayo's stitch was used.

The next was an occlusion of the common duct, which the operation showed to be due to cancer of the gall-bladder and liver with many enlarged glands; nothing was done.

Third case was a painful lump in the abdomen; exploration disclosed a purulent collection in the abdominal wall; origin uncertain.

Fourth Case.—Cholecystotomy for probable cancer of the head of the pancreas, with jaundice. Cholecysterenterostomy will be done if the fistula should not close in a few months.

Fifth Case.—Chronic traumatic arthritis of ten minutes' standing in a middle-aged man. Joint aspirated and about oz. ii. of thick synovial fluid withdrawn; then oz. i. of a 2 per cent. solution of formaline in glycerine injected; limb put up on splint.

Sixth and Seventh Cases.—Appendicectomies. In pus cases Mr. M. adheres to no particular incision. In interval cases he prefers Battle's at outer margin of rectus.

Eighth Case.—Cholecystectomy for doubtful malignant disease associated with gall-stones.

Ninth Case.—Gastro-enterostomy for duodenal ulcer. Mr. M. used his twin clamp forceps in making the anastomosis.

At the Leeds Infirmary I saw Mr. Hellier do an ovariectomy, using silk ligatures and closing the wound in layers.

(To be continued.)

A CASE OF INFANTILE PARALYSIS SIMULATING MENINGITIS—TENDON TRANSPLANTATION.

By A. Jefferis Turner, M.D. (Lond.), M.R.C.S.,
Brisbane.

My notes of this case are not so perfect as I could wish, but I am able to give all the more important points. The boy was exhibited at the meeting before last, and no one seeing him then could have any doubt that he was suffering from residual paralysis left by an attack of anterior poliomyelitis, the lesions being flaccid paralysis and atrophy of the left deltoid and of many muscles of both legs. But in the acute stage of his attack the diagnosis was by no means so clear.

His illness began at three years of age, in October, 1904, at a time when Brisbane was suffering from a small epidemic of infantile paralysis. The onset was acute. He was feverish one morning, and had a severe attack of convulsions lasting an hour and a half. After this he remained less than semi-conscious for several days. I saw him on the second or third day, and despite the cerebral symptoms I regarded his illness as true infantile paralysis, on account of the total flaccid paralysis of the limbs on both sides. Two weeks after the onset he was admitted into the Children's Hospital. He was then not quite so unconscious, but very irritable, and screamed at intervals during the night. He was inclined to hold his head retracted, ground his teeth constantly, and had a slight squint. Both legs and one arm were completely paralysed. He was ordered chloral and bromide, to be taken every few hours, according to symptoms. During the next two weeks the symptoms of cerebral irritation persisted and increased. He was never fully conscious, but extremely irritable, and marked muscular rigidity developed, the head being usually retracted, hands clenched and feet extended. These symptoms so forcibly suggested meningitis that I made a lumbar puncture. The fluid withdrawn was absolutely clear and pellucid. After this there was very gradual improvement day by day, and he showed signs of understanding when spoken to. A week later he would answer, and began to be able to move his head and

right arm a little, but another two weeks elapsed before he was quiet at night. He was discharged on December 22nd in fair general condition, but with extensive flaccid paralysis of spinal type. Contrary to my fears his mental condition had recovered completely, in spite of the prolonged period of unconsciousness.

Though his symptoms forcibly suggested meningitis, yet the condition on discharge was beyond doubt the result of the infantile paralysis which was then epidemic. Two alternative explanations of the cerebral symptoms suggest themselves. Firstly, that meningitis was actually present as a complication. This appears to be extremely improbable, and the clear fluid obtained by lumbar puncture is strong negative evidence. Secondly, we may suppose that the poison (whatever it may be), which by preference attacks the cells of the anterior spinal cornua, in this instance affected also the cerebral grey matter, and this I believe is the solution.

The boy was re-admitted into hospital on July 16th, 1906, in good general health. He was a bright, intelligent little boy. His right arm was his only unparalysed limb. On the left side the deltoid was completely paralysed and wasted, the flexors of the elbow showed only a feeble trace of contractibility, but the other muscles were normal. In the right leg the quadriceps was quite powerless, but the biceps contracted vigorously. Whether there was any power in the inner hamstrings was not quite certain, in any case they were very feeble. On the left side the condition was worse, for both quadriceps and hamstrings were completely paralysed. The flexors and extensors of the hips were normal. There was double talipes equinus.

The left arm was placed in an angular splint to relax the strain on the paretic flexors, and it was decided to transplant the hamstrings of the right side into the tendon of the functionless quadriceps, at the same time treating the talipes by tenotomy. As I was not able at that time to find any good description of the former operation, I wrote to Dr. Hamilton Russell, who very kindly sent me a detailed description, which I followed closely. An incision six inches long was made down the centre of the back of the thigh, extending over the popliteal space. The hamstrings were dissected out to the whole extent of the wound, and divided at their insertion. The biceps was healthy, but the inner hamstrings were yellowish, flabby, and degenerated. An incision four inches

long was made in the middle line of the front of the thigh down to the margin of the patella. The deep fascia was divided on either side, and the divided muscles brought through and stitched to the upper border of the patella. The extensive wounds healed by first intention.

The subsequent course was interesting. When the boy left the hospital on the 25th of November I thought the operation was a failure. The biceps muscle was too feeble to effect anything by itself, and the inner hamstrings appeared useless. But he was brought to me again three or four months later in a much better condition. The muscles had strengthened with use, and he could extend the knee vigorously.

The condition of the other leg did not permit of a similar operation, as the hamstrings are functionless. Being rather loth to do an arthrodesis on that side, I have had it fitted with a splint, and after some practice the boy has learnt to walk. Unfortunately I have noticed lately that there is a tendency for the knee-joint on the side operated on to become over-extended, showing that the complete transplantation of the hamstrings has a drawback. This is being controlled meantime by a poroplastic splint. It remains to be seen how far it will interfere with what at one time seemed a perfectly successful operation.

(Read before the Queensland Branch of the British Medical Association.)

NOTES FROM NORTH QUEENSLAND.

By R. A. O'Brien, M.B., Brisbane.

It struck me this afternoon that a few notes of some Northern experiences might be of interest, and I have hurriedly written as concisely as possible this paper, for which I ask your indulgence. I have been for four years in the north of Queensland, along the jungle belt, from Townsville to Cape York—a district typically tropical and with a heavy rainfall. The Gulf side I know nothing of personally, but have frequently met medical men from that part.

MALARIA.

Allbutt's System (new edition) I think states definitely that Australia is free from malaria, and the statement has been often made. Admitting that here, as everywhere, "malaria" was a dumping-ground for half a dozen different fevers up to recent years, and admitting that the practitioner has not time to use his microscope in every case,

there is true malaria right along the Northern Pacific slope, with periodicity, response to quinine, and with plasmodia in stained film. The type is almost entirely benign tertian with a stray quartan or malignant. In New Guinea, Dr. Seligmann and Dr. Jones told me the malignant is very common. Stain for routine work is B. W. Leishmann tabloids dissolved in Merck's acetone free methyl alcohol, and I have never had any difficulty in manipulating this admirable stain.

Diagnosis.—I had until recently thought that, say, three successive negative stained films would definitely exclude malaria. However, Dr. Cole, in Manila, and Dr. Koch, in Hongkong, recently showed me cases negative for as many as ten or twelve days, of course in the entire absence of quinine, and yet giving numerous plasmodia on subsequent occasions. In Queensland the patient would effectually bar such diagnostic precision by getting quinine somewhere before two days had elapsed.

Yarrabah, near Cairns, is an admirably managed interesting aboriginal mission settlement, with about 300 people on it. Malaria was formerly almost a scourge, and is still prevalent, though by drainage, cutting away undergrowth and kerosening pools, the superintendent (Rev. E. R. Gribble) has succeeded in reducing the incidence by perhaps 80 or 90 per cent. On a recent visit I found some more rainpools in the rock basins with numerous larvæ of anopheles (species not determined, as all my specimens were upset on board in a storm); in pools only a foot distant, but containing tadpoles, never a larva was to be seen. Since then the "boys" catch tadpoles and stock all the little pools with them, and I hope to see a further substantial diminution.

Malarial Endemicity Index.—I expected to find Koch's index fairly marked and parasites in the blood of many of the children at least on the "out-stations" near Yarrabah, where the great difficulty of drainage still makes fever common, but to my surprise found it very low and parasites in the blood of very few of the apparently healthy children, the observations, as far as they went, going to confirm the Philippine conclusion that two rings in one corpuscle indicates the consummation of an alternative sexual cycle, and is seen only when another attack is imminent.

Mosquito Extermination.—The north can show instances—on a smaller scale certainly, but as definitely successful demonstrations

—of anti-mosquito measures as any in the literature. Samarai, in New Guinea, had formerly a long swamp and constant malaria; now it has no endemic cases at any time and no anopheles in the neighbourhood.

Cairns is built practically on a filled-in swamp. In 1900 malaria was very common, and out of 150 mosquitoes caught promiscuously in a very dark room in the town 30 per cent. were anopheles. To-day, after eight years' constant attention to filling in allotments, there is not a single anopheles to be found in the main part of the town, and in four years I never saw a single case infected in the town itself. About three-quarters of a mile from the centre of the town is a choked creek, and along its banks almost every house has from time to time a stray case; but regarding the oblong block of the town itself malaria has been completely abolished—the success of measures at Yarrabah I referred to previously.

ANCHYLOSTOMIASIS.

This is fairly common in Cairns and district, but as in many other northern matters the over-imaginative descriptions in the past have caused a decidedly exaggerated idea to prevail. I have used beta-naphthol since seeing the Porto Rico report, and am quite satisfied with its efficacy—two 15 grain doses daily on two successive days repeated in a week generally effecting a complete riddance of the ova and worms.

The Tropical Institute I hope will work out the morphology of the worm—personally I think our worm is neither the old-world hook-worm *Anchylostoma duodenale*, or as the Americans call it, *Uncinaria duodenalis*, nor the new world (America, Porto Rico, Philippines) worm, the *Necator Americanus*, but a close relation of the latter and an as yet undescribed species. I have not been able to work this out yet to my satisfaction.

The oil of eucalyptus treatment as recently used here will, if time confirms, be a great gain in the treatment of children, replacing the extremely unpleasant thymol and beta-naphthol. The old debate as to the causal sequence of geophagy (earth-eating) post worm-infection *versus* worm-infection post geophagy habit is like the nursery conundrum of the priority of hen or egg. I have seen intense geophagy—licking father's boots and so on—in a case never treated for anchyllostomiasis and with no ova discoverable in repeated faecal specimens, and with no eosinophilia, and I have also examined many blacks.

in a tribe that habitually eats baked clay or "Dulong" without finding a single ancylostoma infection. Contrawise one finds intense worm-infection without any appetite obliquity, and yet intense and habitual geophagy is, as far as I have read, unknown outside ancylostoma areas.

The cases shown for Dr. Cooper by Dr. Jean Thomson to-night from Woombye are interesting as showing a continuance of infection in the localities adjoining the North Coast lines. You will find that the Children's Hospital records here show cases from thereabout for about 12 years past.

DENGUE FEVER.

At Manila, Ashburn and Craig have established for dengue and a culex mosquito the same infection relation as Shakspear and Reid did at Havana for yellow fever and stegomyia fasciata. They showed that the mosquito carries infection from case to case; that cases are infectious in this way after the first few hours; that one soldier had, though immune to mosquito bite, typical dengue after the typical four-day incubation period when injected with blood taken from a case by hypodermic syringe and then injected into the subject of experiment. With us clinical observation distinctly incriminates the stegomyia notascropta, which is coincident in distribution with the dengue wave of three years ago. (Here a lament is timely that the geographical distribution of our mosquitoes, flies, and biting flies is not yet worked out and accessible, or if worked out I have not been able to get the records.) Since, the wave of typical dengue, cases have been common in the north, resembling dengue in every detail except for the absence of rash and the third-day remission. Recently typical cases have again begun to appear in those who had dengue, three years ago, suggesting that the immunity is wearing out and that another Queensland coastal epidemic is possibly imminent. These cases correspond in blood picture with what E. R. Stitt and Balfour have described as existent in dengue and in dengue only, viz., a leucopenia with a great initial drop in polymorphs (as low as 35 per cent. in some cases I had) with a replacement by small lymphocytes, these in their turn giving place about the fourth or fifth day to large lymphocytes or large mononuclears, though as to classification of these latter there is no agreement amongst authorities.

Reverting to the stegomyia mosquito, there is reason to believe that the fauna of the

coast is changing, and that Mr. Armstrong's theory of an Asiatic invasion of dragonflies holds true for the mosquito world, for I am sure the stegomyia now makes day and night a torture in places where 20 years ago she was unknown.

TYPHOID.

It is significant that endemic typhoid is absolutely absent from Cairns and, I am told, from several other towns on the coast in the thick "scrub" or jungle belt. There are practically no houseflies in these towns, and, believing as I do that seven cases in ten of typhoid in Queensland are due to fly carriage of infected faeces or urine, this to me is a clear case of *propter hoc*. Why no flies exist is not clear, for they swarm in the immediate "hinterland," where typhoid is rife. In Manila typhoid cases are now placed in the wire-screened ward, the access of flies being thus prevented and the number of "hospital" cases being much reduced. Personally, I would much like to see the logical result of the unequivocal evidence of the frequency of fly infection, in the adoption of the practice of keeping all typhoid patients under mosquito nets or in fly-screened rooms, and in never discharging a case without previous urotropin treatment or bacteriological evidence of the absence of typhosus bacillus in the stools. Koch's work in Germany and the work in the Divisional (Military) Hospital at Manila show that they are both easily practicable measures—the theoretical necessity of both needs no argument.

SPRUE.

This disease exists in Queensland in cases where the patient has never left the State. I have, by courtesy of Dr. Ross (Townsville) and Dr. W. MacDonald (Ingham), notes of four such cases. The diagnosis rested on the typical tongue of the books, gingivitis, diarrhoea with frequent copious frothy, yeasty stools, a response to pure milk diet and a relapse on reversion to ordinary diet, with eventual death in two cases. Dr. McDonald is of opinion that it is increasingly prevalent.

FILARIASIS.

This exists sporadically in North Queensland, and I think that systematic examinations of night blood-films would show it in many unsuspected cases in the north. Why (with all the factors necessary for inoculation of others in the patient's house present) cases of family infection are the exception rather than the rule is somewhat puzzling, and is a point worth investigating.

Treatment of filariasis by intravenous injection of a 10 per cent. saline solution of Merck's atoxyl has given me markedly good results in the two cases I tried it on. Half, gradually increased to 10, minims every fourth to second day caused in a Cingalee a total disappearance of an infection of about eight worms in a large drop, and a marked diminution in a second case in which treatment was often interrupted.

I hope that other reports of this treatment will come before the Branch and show whether those results were merely coincidence, or whether we have in this an addition to our sadly feeble armamentarium in dealing with this troublesome and serious disease.

LEPROSY.

The north has sent about 15 to 20 lepers, mostly alien, to the lazarettes in the last five years. Amongst the Kanakas one can get clear instances of a chain of case infection; in one series six cases showing close connection with one Kanaka at Mackay some 12 years ago. I have had but little success in finding bacilli in the nose even after iodization as recommended by, I think, Sticker.

YAWS.

Dr. MacDonald, of Ingham, told me he has had about a dozen cases in that district. I have not seen any in Cairns or surrounding country.

AMBLYOPIA.

A large number of cases of sudden blindness with meningitic symptoms come from the north, in which no evidence of lead poisoning appears. The finger-cherry (*Rhodomyrtus macrocarpa*) has been arraigned, but I think unjustly. Many people eat this fruit with impunity, and I have seen children eat it with no ill result. And in all the cases that I have been able to investigate, several children took fruit off the one tree in large quantities, but only one showed symptoms. Yet it is curious that a number of the cases have a history of immediately previous cherry-eating, and at that I must leave the question.

PEMPHIGUS CONTAGIOSA

I have seen fairly often in infants. A curious itching between the fingers and toes occurring generally during the wet season rather suggests an anchylostoma dermatitis, for I have often found worms in those subject to this itching.

Another curious itching with a white thread-like burrow under the skin on the dorsum of the foot occurs at times. I saw two cases of it four years ago. (As Dr. L'Estrange suggests, they may have been Guinea worms.)

Cases of *sabre-tibia* in several members of an aboriginal tribe, in which I could find no suggestion of syphilis or rickets, were seen at Yarrabah, but never elsewhere.

In one cassowary I found bodies very similar to Leishmann-Donovan bodies, but the opportunity of confirming this or of breeding them on to the trypanosome stage did not present itself.

In many of the birds *enhæm-amœbidæ* were found, and in black snakes and iguanas, but in the absence of literature I could not say whether these are all well known or not.

In dogs a paralysis of the back legs affecting later the fore legs and ending fatally was often seen. In every case ticks (yet unidentified) were found. I expect this was a spirillosis, but could not demonstrate spirilla in the living subject on the few occasions when I could get slides. In duck and fowl-yards fatal epidemics associated with the presence of numerous small red ticks sometimes occur, but I could never find the cause.

ULCERATING GRANULOMA.

This exists in many places amongst the blacks, and on two occasions I thought I had clear cases in whites, but later examinations made me doubtful.

(Read before the Queensland Branch of the British Medical Association.)

TWO CASES OF ACUTE MANIA.

By Arthur Andrews, M.R.C.S., L.S.A., Albury, N.S.W.

THE following are brief notes of two cases which have recently been under my care. The immediate exciting cause in both clearly appeared to be disturbance of the menstrual function. I have not entered into the pathology or the divisions of insanity to which they should be referred. The patients were of totally dissimilar types, the first being a strongly built, phlegmatic German girl, while the second was a very slight undersized girl of English parents, who had always been very lively in disposition, though never robust. In the first there was a clear history of inherited taint, while in the other nothing could be discovered, though her family-tree possessed many fruitful branches.

CASE I.

Miss S., aged 26, was brought from the country on September 19th, suffering from a violent attack of mania. She was very restless, and often noisy and unmanageable. The history was that she had been more or less strange at intervals since her mother committed suicide four years ago, shortly

after she had apparently recovered from an attack of melancholia. She has been morose and uncertain in temper, seeking to get away by herself, and has not slept well for some months. During the last three weeks she has been worse, and hardly slept at all. She has not shown any desire to injure herself or others. She is now very resentful at any attempt to restrain her, will take neither food nor drink, nor do anything she is told. The patient is a strongly built, well-developed German girl, 5 ft. 6 in. in height, of pale muddy complexion. Temperature normal, pulse over 100, but difficult to estimate, from constant movement. Tongue furred, bowels constipated. Has not menstruated for seven months, but there is no indication of pregnancy. She takes no notice when spoken to, but is restless, rolling incessantly about the bed, requiring at least one attendant always beside her. Is believed not to have slept at all for three days and nights. After some trouble she was made to take a strong aperient and a chloral draught. The next morning the bowels had acted well and she was less restless, though she had not slept. A bromide mixture was ordered to be taken every three hours. There was much difficulty in inducing her to take any food. During that day she gradually became quieter and at night slept some hours. On the 22nd she had become very quiet and practically cataleptic. Her limbs if raised would remain so for considerable periods. If thoroughly roused she would take food and eat it ravenously. The bowels acted naturally and the urine passed freely; it contained no albumen. There appeared to be some discomfort about the pelvis, and a hot fomentation was kept constantly applied to the abdomen. She was also put on to a mixture with full doses of valerian. She remained quiet till the afternoon of the 23rd, when she became very noisy and violent, screaming and struggling most of the time. Hyoscine was used freely hypodermically, but with little effect. It required two to keep her in bed and prevent her hurting herself, and on the 25th arrangements were commenced for her removal to an asylum, but could not be completed till the next day. During that night she commenced to menstruate and soon after fell asleep quietly and slept till 9 a.m., when she woke perfectly sane and rational and anxious to take food. The menses continued fairly plentiful, and from this time she rapidly improved, and was able to return home on

October 4th, when she was lively and cheerful. Since returning home she has been much better, except for a few days before her period, when she was again restless and somewhat morose, but this state passed off as soon as the flow was established.

CASE II.

Miss B., aged 19, brought in October 21st in a condition of acute mania, very excited, throwing herself about, continuously talking and shouting incoherently. Her history showed that she was a twin, and has never fully developed, being under five feet in height, and very small made. She has never been ill, but always somewhat delicate, and disinclined for the usual amusements of country girls, such as riding, etc. She has always been of lively disposition and cheerful, and looked upon as one of the liveliest of a large family.

Menstruation commenced at 14 and continued till three weeks before admission, when she missed her period without any apparent reason. No change was noticed in her till two days ago, when she became very excited and refused all food and drinks under a fear of being poisoned. At times she was very violent. The patient is very small and slight, looking about 15, and very poorly nourished, the mammae being but very slightly developed. Tongue furred, mouth dry, bowels constipated, temperature normal, pulse very quick and uncountable from her constant movements. Is constantly talking and resists any attempt to feed her. Hyoscine was administered hypodermically, but with little effect. On the 22nd she was more violent, and in the evening chloroform was given, as she never ceased screaming. It soon took effect and she slept four hours and was quiet for some hours after. At 10 a.m. she was again as violent as ever, and Dr. Woods saw her in consultation with me. We decided to again give chloroform and take advantage to make a thorough examination. We found the vulva and vagina excoriated, hymen natural, with a very small opening. Per vaginam it was at once perceived that the uterus was retroflected, and on straightening it out with a view to reposition, about half an ounce of white acrid pus gushed out. We curetted, very little dilatation being required, and passed in a gauze drain. Hot douches and enemata were ordered, and a mixture containing quin. valerianat. given every four hours. She immediately became quiet and easily managed, except for short intervals of

hysterical laughing. The appetite also returned at once. On the 23rd she allowed the nurse to properly wash her, without trouble, and was generally quiet. On the 24th I removed the gauze drain, but was unable to renew it, as the smallness of the passage and opening in the hymen made it too painful.

The douches, etc., were continued daily till the 27th, when she allowed me to insert a small Hodge pessary without trouble. All trace of excoriation had gone, and no pus had been seen since the 24th. Her appetite was capricious. She was then put upon 5 grains of ovarian extract every four hours with marked general improvement for some days. On the 30th she was up and helped to pass the time with housework. The temperature had never been above normal, except on the night after curetting, when it reached only 99.4.

Her general condition improved till November 4th, when she seemed rather more hysterical, and complained of vague pains about the pelvis. She was therefore put on a mixture with ammon. valerian and a pill with 2 grains of manganese oxide every four hours. The improvement continued, and she became quite cheerful, but the pelvic discomfort was still complained of, and she had great repugnance to the necessary douche. It was therefore decided to perform hysteropexy, and this was carried out on November 9th. The uterus was at the same time lightly curetted and found practically clear. The ovaries were small but healthy, and the Fallopian tubes normal.

The report next morning was that she had passed the best night since admission. Temperature normal and pulse 60. No retching. No pain, nor discomfort was complained of; the bowels acted well on the second day. On the third day a slight show was noticed for a few hours. She continued well till the 16th, when she again became very noisy and excited, being kept in bed with difficulty. She refused food, and it was with great trouble the dressing over the wound was changed. That was found to be progressing favourably, but the temperature rose that night to 99.8, pulse remaining at 60. She continued noisy and very restless for three days, though hyoscyne was administered freely. The constipation also proved very troublesome.

The period of excitement lasted four days, the wound healed without trouble, and on the fourteenth day she was allowed up. She was put on tonics and the bowels regulated, and she has, with short intervals of restless-

ness, very much improved in condition. She now takes interest in things around, and I have little doubt that when her menses are re-established she will rapidly recover.

Throughout the case her mental condition was a direct indication of the state of her secretions. When the bowels were the least constipated she immediately became more troublesome, and a smart aperient was always followed by a remission.

Whether it was justifiable to operate so early on the retroflexion I am not prepared to say, but we were induced to undertake it at that particular period from a consideration of its ultimate necessity, her general improvement, and the fact of her necessarily having to remain under treatment for a considerable time. It seemed to us that she had a better chance of permanent recovery if the uterus was restored to its normal position and theoretically at least she should be benefited by the removal of the apparent cause of her illness.

Since writing the above she has steadily improved. Menstruation was re-established in December, and she has gained weight. There is no present trace of her illness, and she is reported as better than for years.

(Read before the Border Medical Association.)

RING CANCER OF THE SIGMOID FLEXURE.

By W. Anstey Giles, M.B. and Ch.M. (Edin.), Hon. Surgeon, Adelaide Hospital.

ROUGHLY speaking one may safely say that in one half of all cases of carcinoma occurring in the alimentary tract below the stomach the tumour involves the rectum. In 1905 Tuttle collected 2432 cases with the following result:—Rectum, 1690; cæcum and ascending colon, 283; sigmoid, 182; transverse and ascending colon, 160; appendix, 60; ileum, jejunum and duodenum, 69. The condition to which I wish to direct your attention for a short time comes third on this list. Other statistics show that carcinoma occurs in the sigmoid more frequently than in any other part of the large intestine. Von Bergmann, for instance, states that cancer of the large intestine, exclusive of the rectum, occurs most frequently in the sigmoid flexure, then in the cæcum, then in the hepatic and splenic flexures and other portions of the colon. It is almost invariably primary and solitary. It tends to grow circularly and thus produce stenosis with hypertrophy and dilatation of

the intestine above it. The effect upon the mesentery is at first to lengthen it; later it becomes involved by the growth, and contracts. In many cases of this disease, especially in elderly persons, there are few or no symptoms for a considerable time. A high degree of stenosis may produce no other symptom than constipation and slight meteorism. Careful examination will show a local meteorism in both lumbar regions if the obstruction is in the sigmoid or rectum. In the great majority of cases that have come under my notice the absence of symptoms, previous to complete occlusion of the lumen of the bowel, struck me as very remarkable. There were no evidences of emaciation or cachexia, no pain complained of, no altered character of the motions, no blood or mucus, no constipation alternating with diarrhoea, and the individual was able to go about his ordinary duties without any apparent disability. Dyspeptic phenomena were usually present of varying degrees of intensity, but beyond disturbance of that nature nothing abnormal was noticed until the disease had reached an advanced stage. It so frequently happens that complete stenosis, warded off for months by canalisation resulting from ulceration and by hypertrophy, dilatation of the bowel on the proximal side of the growth suddenly develops, and an obstruction of the bowels demands professional aid. When the surgeon appears on the scene he is generally at a loss to decide the true nature of the malady owing to absence of guiding signs and symptoms. Of course, when a lump can be felt there is no difficulty, but when the growth is mobile and in the middle portion of the iliac colon (omega loop) it very frequently cannot be palpated either by rectum or through the parietes. The diagnosis is easy then if the three chief signs—tumour, stenosis, and ulceration—can be detected, but it is exceedingly difficult when these points cannot be elicited. I have seen many cases during the years I have practised in Adelaide that have been sent into the hospital undiagnosed, and much valuable time lost in attempts to obtain an action of the bowels before surgical intervention was attempted. Thus, I am prompted to draw special attention to this subject in the hope that some practitioners instead of temporising will advocate surgical measures and explore the abdomen with greater readiness when symptoms of stenosis have manifested themselves. A case in point is the one I shall refer to in detail later on. Three months before surgical treatment was

suggested the man had "stoppage of the bowels for five days, which was finally overcome by an enema." The subsequent developments make it a matter of regret that a coeliotomy was not performed at an earlier stage, when the true nature of the obstruction would have been revealed and radical measures adopted. In these days of aseptic surgery we all know how safe and simple an incision in the left ilio-inguinal region is, and what valuable knowledge can be thus obtained. We know that carcinoma of the intestine grows slowly. Its latent period may extend over several years without producing alarming symptoms. It is far less malignant than many of the other forms of carcinoma, and therefore offers a favourable field for radical treatment. Inflammation may suddenly increase the degree of stenosis, while ulceration may almost as suddenly enlarge the lumen of the contracted bowel. Viewed from without, quite a small amount of gut appears to be involved; in fact, it looks as though a string had been tied around the bowel. As the disease progresses, the tendency is for one or more of the appendices epiploicæ to lie across and become firmly adherent to the affected area. Presumably this is nature's attempt to combat the result of disease and prevent or delay a perforation, the inevitable result in the long run of an advancing ulcerative and destructive process. In the same manner in advanced cases the omentum comes to the rescue; and how often we find a layer of thickened omentum plastered down over the infiltrated portion of gut. Viewed from within, the lumen of the bowel is contracted by a well-defined ring representing the oldest central portion of the growth, while above and below this the cancer extends in the mucous membrane and submucosa for a varying distance, but seldom farther than one inch in each direction. Another feature worthy of note is the liability to infection of a second loop of gut by direct contiguity, and several specimens illustrating this complication will be exhibited to-night.

In carcinoma of the sigmoid flexure perforation into the urinary bladder, with cystitis and pneumaturia, may be the first alarming symptom. In such cases the examination of the urine will show that it contains fecal matter, while bimanual examination will further prove the existence of a pelvic tumour. A very typical case illustrating this condition came under my notice iast year. In this relation I may also mention another case I had last year. My assistance was sought more on

account of bladder discomfort and irritability rather than bowel disturbance. A rectal exploration revealed a large boggy swelling in the pelvis, which when explored turned out to be a purulent collection connected with a sigmoid carcinoma leaking on its concave aspect, and the urinary distress complained of resulted from pressure. Carcinoma of the intestine may be permanently cured by operation. Numerous cases are recorded in which ten years have elapsed since the disease was removed and no recurrence has taken place. The patient I have exhibited will celebrate the second anniversary of his operation a few weeks hence; and so far as I know this is the only man in South Australia fortunate enough to be able to make this claim.

The method adopted for the radical removal of the diseased area of bowel will vary with different operators and with the portion of sigmoid involved. In suitable cases I strongly advocate a colostomy first and several weeks later extirpation of the growth through an incision in the middle line. I think a large Murphy's button to unite the divided ends of large intestine may be employed with every advantage, being simple, expeditious and safe. Mikulicz writes: "The use of the Murphy button, which in the case of the small intestine frequently leads the operator out of difficulty, is in the case of the large intestine absolutely contra-indicated." It certainly must appear presumptuous on my part to differ from such a high authority, but I have no alternative when the practical experience of myself and others proves that the method he condemns yields most gratifying results. The two-stage operation I believe in thoroughly—first, an artificial anus; second, some weeks later remove growth and effect coaptation with a Murphy's button. Mikulicz also writes: "The operation in several steps must be considered the normal procedure for extirpation of tumours of the large intestine. In carcinoma complicated by ileus it is better to establish a simple artificial anus and leave the resection to a subsequent period, when the local and general condition may be more favourable. Resection of the large intestine is performed as follows:—1. The portion of intestine to be resected, together with the tumour or other diseased tissue—for example, the lymph gland—is separated from the mesentery to a distance of 3 or 5 c.m. from the tumour and brought out through the abdominal incision. The gap or rent in the mesentery is closed by suture, and the two portions

of bowel which form the spur are brought together by a continuous serous suture. 2. The peritoneal cavity is then closed by suture, and the skin is sutured to the projecting intestine. The affected bowel may then be cut away either immediately or after 12 or 24 hours. At a later period the spur between the afferent and efferent portions of bowel is destroyed, and still later the artificial anus is closed."

Another method suggested:—"An entero-anastomosis may be established above and below the portion of intestine which is to be resected. At a later date the resection is performed and the cut ends of the bowel are closed blindly." Mikulicz states that this method has the great advantage that the patient is not subjected to the annoyance of a temporary artificial anus, but it is not wholly free from the risks of a complete operation carried out at one time.

I propose to read brief notes of two cases illustrating different types of this disease. The former is very characteristic of the usual train of events associated with cancer in this situation, and the specimen which has been exhibited will demonstrate the essential details already mentioned. The latter is much more advanced with a large mass in the left iliac fossa, easily palpated and with a history of progressive emaciation, loss of strength, passage of blood by the anus, and a peculiarity of faecal matter voided for six months before operation, in addition to which pain of a constant and intractable nature has been a pronounced symptom.

G.W., *æt.* 62. All through life a healthy, strong man, and no illness with the exception of an occasional subacute attack of gout. Has led an active life, but now retired from business; still an energetic man, who takes regular exercise, is punctual in his habits, and extremely temperate in eating and drinking. On 21st March, 1906, was working in his garden when he felt some colicky pain in the abdomen and a desire to relieve his bowels. That morning the usual action had been missed. He made the attempt, but the effort at defæcation was attended by no result, not even the passage of flatus. He took some castor oil and later on used an enema, but nothing passed. He did not continue to suffer pain, but, becoming anxious, sent for Dr. Scott. There was no rise of temperature, no increase of pulse rate, no distension or rigidity of the abdominal wall, no vomiting. There had never been any similar seizure on

any previous occasion. Dr. Scott prescribed purgatives and also advised further use of the enema. The next morning when the doctor visited he found his patient *in statu quo*, and extra efforts to obtain relief, persisted in during the day, were unavailing. On the 23rd his condition became worse; he began to vomit, the abdomen distended a little, and the pulse rate increased. That afternoon I was called in consultation. I found the patient lying comfortably in bed with his legs extended, no pain complained of, abdomen slightly distended, and his expression calm and tranquil. The history suggested the true nature of his malady, and on passing my finger into the rectum I could just touch a freely movable lump, which felt about the size of a small orange. This I took to be a ring cancer of the omega loop of sigmoid, hanging low down into the pelvis, which I could palpate through the wall of the rectum. I recommended surgical interference without delay. Next morning I performed an inguinal colostomy, and through the opening was able to verify my diagnosis, map out the exact position of the growth, and place my opening in the bowel between the two longitudinal bands at a sufficient distance on the proximal side of the obstruction to enable the radical operation to be performed with facility on a subsequent date. Exactly two weeks later the patient was placed under ether, the opening in the colon temporarily closed and sealed over, and an incision made in the middle line below the umbilicus. No adhesions required attention, and the constricted loop could readily be drawn up into the wound. I need not enter into details in describing the steps of the operation. The diseased portion of sigmoid was resected without any difficulty, and the divided ends of bowel united by means of a large Murphy's button employed in the usual manner. The cancer was situated rather low down to enable the ends to be closed by sutures and a lateral anastomosis to be accomplished—a method which I know is safe, rapid, and yields admirable results. I saw Doyen operate in this manner recently with great dexterity. The bowel was crushed at the point selected for section with an enterotribe, divided, and a silk ligature applied. The same manoeuvre was carried out on the other side of the growth. The ends were invaginated, rows of serous sutures were inserted, and finally a lateral anastomosis re-established the continuity of the lumen. Direct end to end

suturing I have never tried when dealing with large intestine, and prefer the button to this, as I am under the impression that it is safer and more expeditious. The patient made a rapid, uneventful, and most satisfactory recovery. On the 11th day I removed the button, which I found low down in the rectum, causing some uneasiness. The artificial anus was not interfered with, and gradually closed spontaneously to such an extent that the man has declined to submit to any further operation, as he says he is perfectly comfortable and satisfied. There is only a pin-point opening, through which a little gas escapes once or twice a week, but never any faecal material. At the end of a month he left the private hospital for his home, and has enjoyed excellent health ever since. He has kindly consented to attend the meeting to-night, and I think you will allow that his condition leaves little to be desired, and for a man of his age he is in an excellent state of preservation.

CASE No. II.—R.W., *æt.* 66, was admitted to my ward in the Adelaide Hospital on the 24th September, 1906. The following notes were taken:—"Since a fall about two years ago has had pain on and off in the left side of his abdomen, low down. Three years ago he weighed 15 st.; his present weight is 9 st. About three months ago he had an attack of stoppage of the bowels, which lasted five days. Purgatives were freely used without the desired result, but finally the obstruction yielded after an enema. Four weeks ago had a similar attack, which again yielded to treatment. Blood came away per rectum after injection had been used. During the past six months the motions have been pencil-like. Bowels never act without purgatives. The tongue is white and furred, pulse 68, good volume and tension, and heart and lungs normal. Examination of the abdomen reveals a hard fixed lump about the size of a large hen's egg in the left iliac region. Nothing abnormal could be discovered by rectal exploration. Urine sp. gr. 1012, trace of albumen, no pus, no sugar. 6/9/1906.—Ether was administered. A large free incision dividing everything in the left ilio-inguinal region disclosed a massive growth on the first segment of the omega loop. This was firmly adherent to the iliacus muscle, and consequently had not fallen down into the pelvis as usual. The adhesions to the iliacus were thoroughly separated and every care taken to avoid the blood vessels and ureter. The tumour could then be delivered through the opening in the parietes. A V-shaped

portion of meso-sigmoid was clamped and excised, the vessels being tied in sections. The cancerous portion of bowel was then resected and Paul's tubes inserted into the divided ends. The colon above the constriction was neither dilated nor loaded. The lumen at the site of the tumour permitted the passage of a pocket-book pencil. The patient bore the operation remarkably well. Two points were especially noted:—1. The absence of the omentum at the seat of disturbance in a case such as this, where it was so evident that the morbid process had been present for a considerable period. The appendices epiploicæ were as usual carrying on their defensive action in covering over the seat of greatest constriction. 2. The absence of pent-up faecal gush when the bowel was opened, showing that the medical treatment he had been under for 12 months previously had the effect of keeping the motions soft. This also was accounted for partly by the very marked compensating hypertrophy of the intestinal wall, and partly by a certain degree of ulceration assisting canalisation.

The day following operation the man was doing splendidly, and nothing occurred worthy of comment.

10/9/06.—Paul's tubes were removed. The bowels acted freely with an aperient. General condition excellent. Progress continued to be uninterruptedly satisfactory in every way. He took nourishment well; faeces escaped freely, and he was free from pain. In fact, he had quite recovered from the effects of the intestinal resection.

On the 26th September he was suddenly seized with severe pain about the umbilicus and front of the chest. The tongue was coated, the pulse 104, small and compressible, and the abdomen slightly distended. When I saw him next day he was collapsed and almost pulseless, so further operative interference was out of the question. On the 28th he died.

P.M.—A quantity of thin yellow pus in the right kidney pouch, which was shut off from the general peritoneal cavity by omentum. This had probably become bound down years before as the result of an acute appendicitis. The appendix was embedded in old dense adhesions. The caput coli cæcum was extensively ulcerated and perforated at one spot. The position of the omentum revealed by the post-mortem examination explained its lack of response to the cry for aid when the sigmoid became attacked by a morbid process.

The result was unfortunate, but none the less interesting and instructive. A somewhat similar but more advanced case of cancer of the sigmoid came under my notice some four years ago. The growth was bound down to the iliacus by very extensive and dense adhesions. After opening the abdomen and carefully exploring its relations I formed the opinion that any radical measure would probably fail, so decided to make an artificial anus and do no more. A few weeks later, however, one more heroic than myself attempted to extirpate the growth, and succeeded, but the internal iliac vein was wounded, and the man died soon afterwards.

The most recent case of this disease brought under my notice was admitted into the Adelaide Hospital too late for a radical operation to be undertaken with any degree of confidence. In fact, he did not survive the preliminary opening of the abdominal wall for exploration and colostomy. The specimen which has been exhibited this evening is very typical in character, and had he been operated upon in an earlier stage we might have had a result to chronicle in every respect equal to Case No. 1.

I am so conscious of my own shortcomings that I shall never attempt to pose as a captious critic—we are all wise after the event,—but I can hurt nobody's feelings by expressing an opinion with the best intention and with the object of kindly guidance. As an operating surgeon I do not agree with the policy adopted of keeping a case of complete intestinal obstruction for 14 days under observation for medical treatment and finally exploring the abdomen with an aspirating needle, shortly before sending the patient on a journey of 37 miles. To reach the Adelaide Hospital it was necessary to travel the distance in a coach over a road with a decidedly uneven surface.

I cannot bring these notes to a conclusion without thanking Dr. Scott for his kindness and help, and Prof. Watson for invaluable assistance and advice.

(Read before the South Australian Branch of the British Medical Association.)

In connection with the scheme of expending about £9000 at the Wendouree Asylum, and making it a central institution for the accommodation of all epileptics under control in Victoria, the preparation of plans is being proceeded with by the Public Works Department. Sir Alexander Peacock (the Chief Secretary) stated that as early a start as was possible would be made with the new works.

**A CASE OF CARCINOMA OF THE SIGMOID,
COMPLICATED BY A DOUBLE PYOSALPINX.**

By T. G. Wilson, M.D. (Syd.), F.R.C.S. (Ed.),
Hon. Gynaecologist, Adelaide Hospital.

The following case presents, I think, some features of interest, especially from the point of view of diagnosis, and the difficulties in the after treatment.

Mrs. P., *æt.* 32, 3-para, was admitted to the Adelaide Hospital under my care on September 4th, 1906, and the house surgeon obtained the following history:—In July, 1906, she was taken suddenly ill with what was diagnosed as pelvic peritonitis, and at that time a posterior colpotomy was done, but only clear fluid obtained, and though her acute symptoms subsided she had suffered considerable pain and pelvic discomfort up till the time of her admission to the hospital. She gave the history of having lost a good deal of weight, and of having during the last two months passed slimy blood stained material from the bowel, and of having had a constant evening rise of temperature.

I saw her first on September 5th, 1906, and found the pelvis filled by a biloted mass, occupying the two posterior quarters of the pelvis, and pushing the uterus forwards against the symphysis pubis. The mass on the right side was the size of a cricket ball, boggy and tender, while that on the left was not tender, but extended to a much higher level and was of stony hardness. There was still a sinus in the cul-de-sac, from which a small quantity of purulent discharge escaped. Rectal examination gave no further information. I made the diagnosis of double pyosalpinx, and opened the abdomen on September 7th, 1906, finding the whole pelvis choked by a dense inflammatory mass. The veriform appendix was adherent to a large pyosalpinx on the right side, which was enucleated without rupture, and the right ovary and tube and the appendix removed.

On turning attention to the left side a smaller pus tube was discovered there also, but the main mass was found to be a dense infiltration involving the lower part of the sigmoid flexure and the upper part of the rectum, and in separating the pus tube this mass tore right through, exposing the complete lumen of the sigmoid infiltrated with a friable growth and ulcerated on the mucous surface. The contents of the pus tube were evidently infected by B. c.c.

After removing the left tube and ovary I resected about 7 in. of the lower part of sig-

moid and the upper part of the rectum, getting as clear of the growth as possible, and then attempted to do an end-to-end anastomosis of the two ends of cut bowel; but owing to the difficulty of satisfactorily introducing sutures into the upper end of the rectum, which was in a cavity almost at the bottom of the pouch of Douglas, I brought the ends together with a large-sized Murphy's button. The opening in the cul-de-sac was next enlarged, and gauze packed round the line of anastomosis. The uterus was suspended with two catgut sutures and the abdominal wall closed, and, lastly, a left inguinal colotomy performed. The patient was in a very collapsed state on leaving the table, and for the next five days her pulse ranged from 130 to 160. She was kept in Murphy's position and the constant saline drip adjusted through a long rectal tube passed through the colotomy wound, and after the bowels moved, on the evening of the fourth day through the colotomy wound, she gradually improved.

On the 7th day there was slight faecal discharge through the vagina, and on the 11th day part of the Murphy's button could be seen presenting at the opening in the posterior cul-de-sac. Under ether the button was removed through the vagina, leaving a well-marked recto-vaginal fistula, and though most of the faeces passed through the colotomy wound, some also passed down into the vagina, and the fistula showed no inclination to heal. The patient was again anaesthetised and a long rectal tube passed into the rectum from the anus and guided into the sigmoid by the finger in the posterior cul-de-sac, and so brought out through the colotomy wound. A large rubber finger-stall was attached to the upper end of the rectal tube, and this was blown up by means of a catheter, and then by drawing on the lower end of the rectal tube the upper end of the sigmoid could be plugged, thus causing all the faeces to be discharged through the colotomy wound. This elastic plug was under complete control by means of a piece of silk attached to the upper end of the rectal tube, and by drawing this up the lower part of the bowel could be irrigated each day. This was found to be effective, and at the end of a fortnight the recto-vaginal fistula had healed, and the rectal tube was withdrawn. The abdominal incision healed satisfactorily. On October 21st, 1906, the patient passed a small motion per anum, but the greater quantity of the faeces were passed through the colotomy wound for two

months longer, and then a large-sized marble was introduced into the colotomy wound, and was passed per anum in eight hours, shewing that there was a good lumen to the gut at the site of the anastomosis. The patient had left the hospital a month before, and I now advised her to wear a plug on the colotomy wound, which was effective in making all the faeces pass into the lower bowel, and in about three weeks' time the colotomy wound healed by itself.

Microscopic examinations of sections from the excised bowel were pronounced by Drs. Mainwaring and Kidd to be carcinomatous.

I have kept this patient under observation, and she has improved in every way, has put on nearly two stone in weight, and when examined a few weeks ago showed no sign of recurrence, and reports that the bowels move naturally or with an occasional aperient. It is now 17 months since the operation, so that I hope the outlook is favourable.

There was nothing in her symptoms before operation to suggest more than some pressure on the rectum, as the passage of slimy material is not unusual with any pelvic growth pressing on the rectum, and even when the bowel was palpated after opening the abdomen, it seemed as if it were merely a rather more marked than usual inflammatory exudation round the lower part of the sigmoid and rectum, such as is frequently met with in pelvic inflammatory cases; but the friable nature of the bowel infiltrated, together with the ulceration of the mucosa, and later the pathological report, make the diagnosis clear.

In the *B.M.J.*, of July, 1907, W. K. Montsarrat has drawn attention to the close simulation of malignant disease by inflammatory infections of the sigmoid, and despite the hardness of the bowel I was at the time inclined to look on the whole trouble as inflammatory. In another patient on whom I operated about the same time there was a very similar condition, but more marked; but this patient had a definite syphilitic history, and after removing a suppurating ovary on the left side, the patient was treated with Hg. inunctions and pot. iod., and the mass quite disappeared. Dr. Hone, whose patient this last woman is, tells me that he has since attended her for a miscarriage and that the lump was not then palpable.

In the case recorded, the use of the constant saline drip inserted through the colotomy wound seemed to be of distinct use, as

the patient's condition for several days was anything but hopeful, and altogether the colotomy was her chief safeguard.

(Read before the South Australian Branch of the British Medical Association.)

THE MIMICRY OF SYPHILIS.

By Richard Arthur, M.D., Assistant Surgeon, Ear and Throat Department, Sydney Hospital, Sydney.

A PAPER read by Sir Felix Lemon at the annual meeting of the British Medical Association this year on "The Differential Diagnosis of Tuberculosis, Syphilis, and Malignant Disease of the Larynx" recalls to my memory two interesting cases seen at the out-patient department of the Sydney Hospital.

Sir Felix states that "there is very little danger of mistaking the so-called typical cases." I should like to have submitted these two to him.

The first was an emaciated woman of about 35 years. She had the typical arytenoid swellings and some involvement of the epiglottis. On sending her to the medical department, the report came back that there was extensive disease of the right lung. Here surely was a plain case of tubercular laryngitis. She was given cod liver oil, and a few months to live. She disappeared for about a year and then turned up again, no better and no worse. This roused one's suspicions as to the accuracy of the diagnosis, and she was put on large doses of iodide. In a few weeks the hoarseness had almost gone, the arytenoids had returned to the normal size and appearance, and she was enormously improved during the six or eight months she was under observation.

The second case was a middle-aged woman who had well-marked swelling and ulceration of one of the cords—I forget which—and a gland of stony hardness in the neck. Dr. Brady, who kindly saw the case at my invitation, agreed that the appearance suggested malignancy more than anything else, but recommended a trial of anti-specific treatment. The result on the gland was marvellous. It simply melted away. The swelling of the cord went down, though there still remains some roughness and superficial ulceration of both cords, which is kept in check by occasional courses of drug treatment.

To my mind the moral of these cases is—when in the least doubt play the iodide in increasing doses, not forgetting the while that pot iodide may induce a transient improvement in non-specific cases of malignant origin.

REVIEW AND NOTICES OF BOOKS.

THE OPSONIC METHOD OF TREATMENT: A Short Compendium for General Practitioners, Students and others. By R. W. Allen, M.B., B.S., Pathologist to the Royal Eye Hospital, London, S.E., late Gull Student of Pathology, Guy's Hospital, London. H. K. Lewis. Price, 5s net.

In this small book of 138 pages the author has put a large amount of information on a subject which is probably the most fascinating of the developments of modern medicine. Nowadays when we all talk and dream of vaccines to cure all ills, this is a book to please the keenest partisan of the new treatment, though those who seek in it a judicial survey of the situation will perhaps be less satisfied. For the author is frankly enthusiastic and optimistic, and strikes the keynote of the book in the introduction when he perorates as follows:—"The medicine of the future is the medicine of vaccines and of sera. The empiricism of the past will give way to methods based upon scientific knowledge, and the public will no longer look upon medicine with a sceptical eye, and dose themselves with ineffective nostrums. The surgeon will triumph where he now fails, and, armed with additional power, he will not fear the inroads of bacterial invasion." Evidently these are the words of a very ardent disciple, but it should be remembered that the book is intended for general practitioners and students, and for awakening interest in the subject a degree of dogmatic enthusiasm is not out of place.

Before going further, one must utter a protest against the title chosen for the book, "The Opsonic Method of Treatment." Wright himself uses the term "vaccine therapy," and at St. Mary's Hospital he is officially styled Director of "Therapeutic Inoculation." Either of these terms is preferable to "opsonic method of treatment," which is unscientific and misleading, for, after all, it is not claimed that opsonin production makes up the sum total of the "immunising response" elicited by injection of a vaccine. Many other factors are concerned, such as agglutinins, aggressins, etc., in varying degree in various diseases.

Passing on to the subject matter of the book, one may consider it under three general heads:—1. Methods; 2, clinical results achieved or to be looked for; 3, theories in explanation of results.

1. In regard to methods the author is to be commended for his clear descriptive style. His chapter ii. on the determination of the opsonic index is especially rich in detail and appears to include all the essential points of technique. It is satisfactory to note that he insists on the counting of at least 100 cells in each blood film. In the earlier work on the subject many observers estimated results on a count of 50 phagocytes only, and this fact alone suffices to invalidate many of the published results, which, however, it may be remarked, appear to be utilised freely in this book where necessary to support the views put forward. Equally detailed and clear is the chapter on "the preparation of the vaccine." A misleading statement is, however, to be found on page 46, where "McConkey's medium" is described as "2 per cent agar containing 2 per cent. dextrose coloured by neutral litmus," and its usefulness in the isolation of *B. coli* communis is said to depend on the circumstance that this bacillus "ferments dextrose with acid formation." As a matter of fact, the essential point about McConkey's medium is the addition of bile salts with the view of inhibiting the growth of other than intestinal bacteria; also it is the fermentation by

B. coli of lactose, not of dextrose, that is utilised in the differentiation of this bacillus. Acid formation in dextrose media is produced by a multiplicity of bacteria.

2. As regards the clinical results of vaccine treatment that are described, it must be admitted that they go far towards justifying the roseate enthusiasm of the author. But as one reads the catalogue of successes, "all prizes and no blanks," an uneasy feeling of scepticism arises, and one feels that the confession of a few failures would almost strengthen one's belief in the reliability of the method, or at any rate of the record. Take, for example, the question of the vaccine treatment of septicæmic conditions. Allen writes, page 101: "The utility of vaccine therapy in infective endocarditis and pyæmia is so striking, in that it is an instance of successful treatment of acute systemic infection, that a short account may be given of two cases." Then follows the account of two successful cases, and the matter is left at that. A much more sober tone is adopted by Wright (*Lancet*, August 24th, 1907), who states that the results of vaccine treatment by him and his fellow workers of six cases of streptococcal septicæmia were:—Two cases cured, with very satisfactory immunising response; one case made an excellent immunising response, but died from cardiac complications four days after defervescence; three cases succumbed without having made any immunising response to the inoculations. Nevertheless, the record of clinical results, if biased, does certainly open up a most hopeful vista. Who, for instance, can think of the desolation wrought by a disease like scarlet fever and not be fired with enthusiasm at the hint of a possibility of combating all this by a streptococcal vaccine prepared from the patient?

3. When we come to the exposition of the theoretical aspect of the subject and of the correlation of the clinical conditions with the opsonic indices, the author appears less convincing. In the first place one cannot accept without reserve the opsonic records of all and sundry observers without some satisfactory evidence of their competency, nor consequently can one swallow all the theories founded on these observations. And in this book one finds conclusions of signal importance based on apparently inadequate data. Thus, regarding the question of the site of formation of opsonin, Allen, on page 9, after mentioning certain experiments on the opsonic indices of muscle plasma and blood serum, respectively, writes: "The only possible conclusion is that actual formation of opsonin occurs in the muscle tissues and passes thence into the blood. This is confirmed (*sic*) by the experience of Wright that a certain case of tubercular ulceration, which had previously defied treatment, did well when the tuberculin was injected in a concentric manner around the area of ulceration." It should be added that Wright does not adduce this case (*Lancet*, August 24th, 1907, page 494) as proof of the formation of opsonin in muscle tissue, but merely as supporting the theory that the bacteriostrophic substances are formed at the site of inoculation.

Again, in the discussion of the correlation of opsonic indices with vaccine injections, the possibility of variation of the index due to causes quite other than the vaccine is persistently ignored. Yet the observations of Wright, Bulloch and other competent investigators have shown that apart altogether from vaccine injections the opsonic index of an individual may fluctuate from day to day and through the day as the result of exercise, food and other factors which probably all produce this effect by inducing some degree of auto-inoculation. Unless this disturbing element can be rigorously excluded it is futile to discuss "negative

and positive phases" as being necessarily the product of the vaccine. Nevertheless, the author is very dogmatic regarding the use of opsonic observations in controlling vaccine therapy. "... the index remains the only safe guide; pulse, temperature, and even clinical appearance afford no indication of the proper time for injection." (p. 95). And he suggests no doubts as to the sufficiency and practicability of these frequent observations, though even the most enthusiastic and industrious may well be appalled by the prospect of the labour involved. Other writers, however, on both sides of the Atlantic are disposed to view the matter in a very different light. Thus Trudeau, in the *American Journal of the Medical Sciences* of June, 1907, maintains that tuberculin treatment may be adequately controlled by careful clinical observation, and with regard to the opsonic index writes (p. 818):—"Apart from the technical difficulties involved in taking the opsonic index of a large number of patients under treatment, the great amount of labour, skill and time necessary in following out such a procedure in each case, and the numerous sources of error which militate against accuracy, we shall have to learn more definitely how reliable a criterion of immunity the degree of phagocytosis really is. . . . The production of opsonins, like that of agglutinins, precipitins, etc., is only part of the complicated mechanism of resistance put forth by the living organism, and its exact meaning as a criterion of immunity needs to be more definitely demonstrated."

Another American, Dr. Simon, of Baltimore, in the *Journal of Experimental Medicine* (September 21st, 1907), draws the following conclusions (*inter alia*) from his investigations:—1. The determination of Wright's index of the opsonic content of the blood and other fluids of the body is open to serious, and in part unavoidable errors, and should be abandoned in its present form. 2. Conclusions based on the determination of the opsonic content of the blood according to Wright's method are accordingly not uniformly reliable.

In the Bradshaw Lecture on "Prognosis in Relation to Tuberculosis of the Genito-Urinary Organs" (*B.M.J.*, December 14th, 1907), Godlee, speaking of opsonic observations, refers to "the chances of error, the difficulty of obtaining uniform results, and the really dreadful nature of the task," and expresses the hope that "some simple method, one less open to error and involving less labour upon the observer, may bring the matter more within the region of practical politics than it seems to be at present."

One rises from the perusal of the increasing literature on the subject with the conviction that therapeutic inoculation has indeed come to stay, but with much less assured views as to whether the same may be said of opsonic observations as essential to the control of such inoculations.

ON MOVABLE KIDNEY AND OTHER DISPLACEMENTS AND MALFORMATIONS. By David Newman, M.D., F.F.P.S.G. London: Longmans, Green & Co.

In this book the author deals very completely with the whole subject in question, and he does it, too, in an entertaining manner, giving full effect to the clinical aspect. The early chapters give a clear account of the anatomical features, and follow on with a review of the various theories of causation. Next, the symptoms, both imaginary and real, are considered, those that are accompanied by no pathological manifestations and those in which grave changes are evident. The different operative methods are discussed, the author

appearing to favour healing by granulation in order to bring about fixation. The concluding chapter on malformations is valuable, because such irregularities are by no means rare, and, as the author pointedly indicates, are much more common in persons suffering from deformities in other parts of the body. The book is well written, and in every way worthy of its distinguished author.

THE IMMEDIATE CARE OF THE INJURED. By Albert S. S. Morrow, M.D., Attending Surgeon to the Workhouse Hospital and to the New York City Home for the Aged and Infirm. 8vo., pp. 340; 238 illustrations. Philadelphia and London: W. B. Saunders Co. Melbourne: James Little. 1906. Price, 10s 6d.

This book is intended to be useful alike to physicians, nurses and laymen, while at the same time serving as a text-book for the use of first-aid classes. Now, we do not think it possible to produce such a work, for much of what is suitable for even a medical student is unsuitable for a layman. For instance, on page 100 there is shown an illustration of a nerve cell showing "the neuraxis" and "the clawlike telodendron of dendrite," on page 150, among the contents of a pocket case, is mentioned a *probe*, and on page 161 directions for using a hypodermic syringe are given.

The author writes, here for the physician or surgeon, there for the first-aid, and the novice is at a loss to know how far he may carry out the instructions. The matter contained in the book, if it were divided into two portions—one an advanced course for the medical student, and another for the first-aid—would be very good; but as written, the volume does not appear to be suitable for those not possessed of some technical knowledge.

THE REDUCTION OF CANCER. By the Hon. Rollo Russell. London: Longmans, Green & Co. 1907. Price, 1s 6d net.

In this little book Mr. Russell claims that luxurious living is the cause of cancer. "The common cause of cancer," he says, "must be not only in the diet, but in a few articles of diet. These are in the main tea, coffee, some kinds of beer, animal flesh, and apparently several stimulants and narcotics, including tobacco." As a plea for a simple life, Mr. Russell's book is good, but we fear that the arguments used are not convincing as to these articles being the cause of cancer, though it might be reasoned that they, when used to excess, may determine the location of the first appearance of the disease, or the period of life at which it shows itself. The work, though pleasant reading, has little scientific value.

"WINCARNIS."—Messrs. Fassett & Johnson, of Barrack street, Sydney, have been appointed sole agents for Australia and New Zealand for "Wincarnis," which is a palatable tonic wine containing choice wine, Liebig's Extract of Meat, and Extract of Malt. The proprietors state that they have "been honoured by more than 1000 testimonials" from the medical profession, so that it has apparently met with the approval of the profession in Great Britain. The sample sent to us was very palatable, and "Wincarnis" should prove of service during convalescence from acute diseases.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH MARCH, 1908.

THE DIAGNOSIS OF TUBERCULOSIS

SINCE the discovery by KOCH of the tubercle bacillus the diagnosis of tubercular lesions of different organs has been rendered to a degree easier and more certain. Previous to that epoch-making discovery the diagnosis of tuberculosis of the lungs depended largely upon elaborate examination of the chest and a correct interpretation of the physical signs presented by the lungs. But while an extraordinary degree of accuracy was reached in many cases, yet the ignorance of the true cause of pulmonary consumption necessarily hampered the physician in his diagnosis. With the advent of the simple method of staining specimens of sputum, and the detection of the specific organism, the diagnosis at once became established in cases in which the physical signs were equivocal. So, too, with regard to doubtful cases of genito-urinary disease, the discovery of the tubercle bacillus in the urine at once facilitated the diagnosis. While progress was thus great in the diagnosis of tubercular diseases which were accompanied by the discharge in the secretion of the characteristic organism from the body, the diagnosis of tuberculosis of other organs, or tubercular disease in a less advanced stage, remained largely a matter of surmise.

Next came the introduction by KOCH of the method of treating tubercular disease by the injection of tuberculin, and it was then found that the injection of tuberculin into the tissues of a patient suffering from tuberculosis of any organ was followed by a characteristic

febrile reaction. Soon, however, it was maintained by some prominent pathologists and physicians that the injection of tuberculin was not a harmless procedure, and that the febrile reaction excited by the injection was an evidence of a positively injurious condition. Nevertheless the fact remained that the injection was diagnostic of the existence of a focus of tubercular disease somewhere in the body, and, as is well known, this method is still extensively used as a means of testing dairy herds for the existence of tubercular disease. It is not now used to any great extent in the diagnosis of tuberculosis in human beings. But what appears to be a great step in advance in the diagnosis of tuberculosis was made last year by CALMETTE, of Paris, and CALMETTE's ophtho-tuberculin reaction is now, we might almost say, well known. He uses tuberculin purified by three successive precipitations in alcohol at 95°, and then dried *in vacuo*. The substance thus obtained was re-dissolved in physiological saline solution in the proportion of 1 in 100, forming the "mother solution," and which may be further diluted to 1 in 200, and when hermetically sealed in tubes will keep indefinitely. A single drop of this solution placed in the inner angle of the eye is sufficient to produce the characteristic reaction if the patient be tubercular. Professor DE LAPERSONNE affirms that this method is without danger to healthy eyes, if its use be attended with the ordinary precautions as to cleanliness, and this is a matter of the greatest importance in the application of a test which promises to be of very great value.

So far as the experiences with this method have been recorded, its certainty has been proved by post-mortem examinations which have revealed the presence of small tubercular foci in persons who were considered clinically to be free from tubercle. CALMETTE

asserts that the "intensity of the reaction did not appear to be in ratio to the extent in gravity of the tuberculous infection; the reaction, however, seemed to be more intense and quicker in appearing in children and in adults with lesions just beginning; more advanced cases reacted less distinctly and later; in cachectic cases and those with extensive lesions, the reaction was negative." If CALMETTE's conclusions are proved to be absolutely correct by subsequent experience of other workers, we cannot fail to recognise that in this reaction we have a most valuable method not only for the diagnosis of early and unsuspected tubercle, but also for testing the progress of cases under treatment either by tuberculin injections or in sanatoria.

LAW AND MEDICINE.

THE libel action recently tried in London in which the plaintiff—the vendor of "Dr. Tucker's Asthma Specific Inhaler"—obtained a verdict for £1000 damages against the proprietors of the *Lancet*, is one of considerable importance to the general public as well as to the profession.

It was shown in evidence that this "patent" remedy contained cocaine, atropine, sodium nitrate, glycerine, oil of gaultheria, and water, and was sold at an enormous profit by a man who himself admitted that he had no knowledge of its composition or of the specific action of the drugs it contained, and that he had no authority to sell poisons under the Pharmacy Act. Several eminent medical men gave evidence to show that these powerful drugs should not be prescribed or used, except under medical supervision, and that the repeated use of such a drug as cocaine was calculated to establish a most pernicious drug habit. The very case which was instrumental in this matter being brought before

the public, showed the danger of the indiscriminate use of this remedy. A man suffering from pulmonary consumption whose distress in breathing was no doubt diagnosed by himself or his friends as due to "asthma," paid £3 for this remedy. No doubt the drugs contained in this "specific," if used appropriately, might give some relief to a patient suffering from the respiratory distress of pulmonary tuberculosis, but if used in the form of this "asthma specific" they would most certainly be injurious. Moreover this remedy is vaunted as a "cure" for asthma, and we suppose that the poor consumptive was induced by this assertion to purchase the drug at an exorbitant price. The City Coroner who held an inquest on the unfortunate man, spoke in open court of this kind of dealing as a fraud, and the *Lancet* applauded his action.

The evidence adduced proved the assertion that it was fraudulent and wrong for an ignorant layman to distribute wholesale a remedy composed of powerful poisons at an exorbitant price to persons ignorant of the true nature of their sufferings. There can be no doubt in the minds of unprejudiced persons that the object of the *Lancet* was to expose the evils resulting from this practice, but, unfortunately, the legal and lay mind appeared to prefer that the gullible and ignorant public should be allowed to put themselves under the treatment of the "heaven-inspired quack." Although the Judge directed the jury that there was no evidence that the plaintiff had suffered pecuniarily, yet if they considered that his character had been attacked they should award the plaintiff substantial damages.

We must express our sympathy with our contemporary in the result of its efforts to expose the evils of the traffic in patent medicines, and the hope that on appeal this verdict will be reversed.

THE MONTH.

The New Melbourne Hospital.

No definite decision has yet been arrived at as regards the site for the new Melbourne Hospital, and in view of the diversity of opinion on the subject amongst the medical profession it is no wonder that the hospital committee find it difficult to decide the question. The proposal referred to in our last issue to build the new hospital on a site next the Immigrants' Home, on the St. Kilda road does not appear to receive much favour now, and the question to be decided is, whether the institution should be re-built on its present site or removed to the pig market site. There is something to be said in favour of both, but we would point out that an unique opportunity now exists for building an up-to-date institution on a good site in close proximity to the University and Medical School, and of making the new hospital the clinical school. The Melbourne Hospital should then be under the control of the University, so far as the appointments to the staff are concerned, just as in Sydney the members of the Royal Prince Alfred Hospital staff are appointed by the Conjoint Board. In this way the University of Melbourne would secure that control over the clinical teaching which at present it has not. The general public should understand that it is in the interests of all that the practitioners of the future should be thoroughly well trained, and that the patients in a University hospital get the best individual attention and treatment.

Municipal Dispensaries.

Last month a proposal was carried by one vote in the Sydney Municipal Council that the City Solicitor should be instructed to prepare a clause for insertion in the next Amending Bill to give the council power to establish municipal dispensaries. In the course of the discussion on the proposal it was maintained that as there are at present large numbers of institutions, such as infants' homes, hospitals, etc., in the city which are at present doing the work that these dispensaries would be expected to do, the suggestion was unnecessary. Needless to say, the proposal is receiving strong opposition, and it is probable that at the next meeting of the council the motion will be rescinded. The Pharmaceutical Society of New South Wales, through their president, have sent a letter to the City

Council, protesting against the proposal. They contend that there is no necessity for such dispensaries, as the poor get free medicines from the hospitals, the worker is looked after by his lodge dispensary, and the well-to-do man obtains his medicines at the many open pharmacies, and there being no necessity for such dispensaries it is not the object of the City Council to enter into business competition with their own ratepayers. We have no doubt that similar steps will be taken by the Friendly Societies and hospitals if the matter gets the length of coming before Parliament.

Amendment of the Medical Practitioners' Acts of New South Wales.

Our readers will be glad to know that the question of the amendment of the Medical Practitioners' Acts of New South Wales has been under the consideration of the Council of the New South Wales Branch of the British Medical Association. A sub-committee was appointed to carefully consider these Acts and a report on the matter has been presented to the Council. It is well known that these Acts of Parliament are defective in various respects, and the present Register of Medical Practitioners in this State is very imperfect, and necessarily so as the law now stands. If the Acts can be amended in the directions sought for, reciprocity in regard to medical registration in other countries will be secured, as well as further restriction on unqualified practice. It is the intention of the Council to approach the Government with a view to securing the introduction by them of a new bill embodying these amendments, and we hope every one will endeavour to secure the interest and assistance of members of Parliament so that the bill may become law.

The True Aims of the A.N.A.

Our oft-repeated assertion that the Australian Natives Association is not a legitimate friendly society, but an organisation which aims at controlling political and municipal affairs, to which medical benefits have been added with a view of attracting and retaining members, with no restriction as to their financial position—an organisation which, therefore, has no claims as such upon the services of the medical profession—has often been denied by its officials. However, at a recent meeting of the Elsternwick Branch of the A.N.A., in Victoria, a discussion took

place which shows our contention to be strictly accurate. According to a report in the Melbourne *Argus*, the branch tabled a motion to come before the annual conference, recommending that all male adults in Australia be eligible for membership. Mr. F. Davison moved an amendment that it be substituted by a recommendation "that all male residents for 10 years be eligible for membership." He pointed out that the association was originally founded to protect the interest of the native born, who were accused of being unable to conduct either the public affairs or the private enterprises of the country, as their fathers had done before them. They had proved this to be incorrect, and the association had ceased to exist for the purpose for which it was originally formed. A lot of members were lost through sons joining the friendly societies to which their fathers were attached, the latter being ineligible as members of the A.N.A., and in that aspect it was desirable to widen the basis of membership. Besides which the association would have the benefit of the experience of members gained in other countries. Mr. Jones seconded the motion. Messrs. A. D. Rowe and F. G. Levens moved as an amendment—"That the delegates of the branch at the conference be authorised to withdraw the recommendation from the conference business sheet." Mr. Levens said the population of Australia was 85 per cent. native-born, but only 25 per cent. were members of the A.N.A. so that there was plenty of scope for the association to become representative. Mr. W. F. Parker objected to the proposition, as tending to rob the association of its distinctive Australian characteristics, resulting in a loss of membership *through the A.N.A. being classed with other organisations as purely and simply a benefit society, and not having national aims and aspirations.* (The italics are ours.) The amendment was defeated, and the motion was carried by a small majority.

School Sanitation.

At a recent meeting of the Municipal Council of Newtown, one of the aldermen drew attention to the condition of the Newtown North Public School buildings, which, if his statements are correct, can only be considered as positively disgraceful. He stated that he had visited the school and found open drains, also buildings used as classrooms the floors of which were level with the ground. When it rained, the water rushed

in the doorways. The floors were decayed, and showed every sign that rats were most prevalent. He said that the Council would be lacking in its duty if it did not at once take the matter up, and protest against a continuance of such a condition of affairs. If he had not seen it for himself he could hardly have believed that, in the heart of such a thickly-populated district as Newtown, this state of things could exist. No bush town would put up with buildings of the kind, for, from a sanitary point of view, the children's health was being seriously impaired. He moved that a very strongly-worded protest be sent from the Council to the Minister for Education and, if immediate steps were not taken to remedy such a disgraceful state of affairs that an indignation meeting should be held. The Mayor said this was no new matter, for during the last five years this Council had been pegging away at the Government about the condition of the school buildings. They had waited upon the Minister, and had been promised a new school, and had even seen the plans, but there the matter ended. Several of the aldermen warmly supported the motion, which was carried unanimously. It seems almost incredible that such a state of things should exist in the school buildings in a large and popular suburb of Sydney, and the necessity for medical inspection of schools and school children is thus strongly emphasised.

Inspection of Private Hospitals in Western Australia.

The Trades Union Congress recently held at Kalgoorlie, in Western Australia, passed a resolution to the effect that in their opinion all private hospitals should be under Government supervision and that the police should have power to enter such hospitals at any time for the purpose of inspection. Judging by what one hears from time to time, Kalgoorlie has an unenviable reputation for the performance of illegal operations, and we presume that this resolution has been prompted by a desire to suppress any institution which may be styled a "private hospital" as a cloak to conceal the real object of its establishment, namely, the procuring of abortion. No owner of a properly conducted private hospital could object to the principle of Government supervision, if by such inspection he would assist in the suppression of illegal institutions. We hope that this resolution will lead to the passing of legislation to put this into actual practice.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Victoria.

The ordinary monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, 4th March. Dr. S. Cusackden, vice-president, occupied the chair.

Dr. W. KENT HUGHES showed a youth from whom he had removed a polypus of the frontal sinus, and explained a modification of Killian's method of operation.

Dr. W. H. SUMMONS showed six cases of mitral stenosis. These patients had all been under observation for some years, some of them from their initial attack of rheumatic fever. In two there had originally been pericarditis as well as endocarditis, but all physical signs of this had disappeared in one case and almost so in the other. The cases were exhibited to show that cases of mitral disease of rheumatic origin which were originally regurgitant tended later to become more and more stenotic.

Dr. SUMMONS also showed a case of spleno-medullary leukemia with a blood-smear preparation from the same. The patient was rapidly gaining weight under treatment.

Dr. KONRAD HILLER showed a girl, *æt.* 23, with a persistent high blood-pressure. She had been under observation for eight months, and during that time the blood-pressure had never been below 195 m.m. Hg., and as high as 245 m.m. Hg. Examination of the heart showed slight hypertrophy and an accentuated second sound. She complained of being nervous and easily tired. No arterio-sclerosis was to be felt. The urine was normal, sp. gr. usually above normal, quantity under 40 fl. oz. in 24 hours, no nocturnal micturition, no albumen. The eyes were normal. The family history was good; no suspicion of specific taint. Her mother and a brother had blood pressures of 130 m.m. or under.

Dr. W. K. HUGHES showed a boy who had suffered from advanced flat-foot. The condition was materially improved after ten weeks' treatment in plaster, the foot being strongly plantar flexed and inverted.

Dr. W. B. VANCE read notes of an outbreak of diphtheria, all the cases being traceable to one person from whom swabs were negative until one was taken from the naso-pharynx.

Dr. K. HILLER discussed the history of the discovery of the spirochæta pallida, and described a new method of staining. He also showed prepared specimens of the spirochæta pallida and other allied spirochætæ from the mouth.

Ballarat.

The annual meeting of the Ballarat District Branch of the British Medical Association was held at the Ballarat Hospital on Thursday, February 6th, 1908, at 8.30 p.m. The President (Dr. William Morrison) occupied the chair, and there were 12 members present. Apologies from seven members were received.

The minutes of the last annual meeting were read and confirmed.

Dr. MITCHELL gave notice of motion—"That the name of the Society be altered to read 'Ballarat Division of the Victorian Branch B.M.A.'"

Accounts amounting to £26 6s 3d were passed for payment.

The annual report and balance-sheet were then presented and adopted.

In presenting the annual report and balance-sheet your Council congratulates the members on the satisfactory financial position of the Branch. Three members were elected during the year and two transferred to other Branches (Drs. Donaldson and Nisbet). The best thanks of the Branch are due to these gentlemen for their active interest in the welfare of the Branch. The membership is now 33—one less than for the previous year. The attendance at the quarterly meetings has been small, and an improvement is much desired in this respect. The Council hopes that at an early date your Branch will have representation on the Council of the Victorian Branch B.M.A. Drs. McClelland and McDonald are entitled to our best thanks for their careful preparation of pathological specimens. Original contributions:—"Some Phases of Insanity in Relation to Crime."—John Steell, M.B., Ch.M.; "Ethyl Chloride Anæsthesia"—A. G. McGowan, M.B.; "Discussion on Tuberculosis"—J. T. Mitchell, M.D.

RECEIPTS AND EXPENDITURE FROM 31ST JANUARY, 1907, TO 30TH JANUARY, 1908.

RECEIPTS.

To Balance 31st January, 1907	..	..	£25	4	3
„ Members' subscriptions	..	..	51	9	0
			£76	13	3

EXPENDITURE.

By Victorian Branch B.M.A.	..	..	£26	8	0
„ Stationery and printing	..	..	1	15	0
„ Bank charges	..	..	0	10	0
„ Balance in Union Bank	..	..	48	0	3
			£76	13	3

Fixed deposit receipt, Union Bank, £77 17s 2d
Examined and found correct.

RICHARD A. CUE } Hon Auditors.
F. G. HAYNES }
HARRY R. SALMON, Hon. Treasurer.
H. V. BENNETT, Hon. Secretary.

Ballarat, 30th January, 1908.

The HON. TREASURER pointed out that there were outstanding accounts to the value of £26 6s 3d. When these were paid the credit balance would be slightly below that of last year.

The PRESIDENT (Dr. Morrison) then delivered his retiring address on "Various Matters of Public Health of Interest."

South Australia.

The first monthly meeting of the Branch was held at the University on February 29th and was well attended, the President (Dr. J. H. Evans) in the chair.

The following exhibits were shown:—

Clinical Cases—

Dr. GILES showed a patient upon whom he had performed colectomy for cancer of the sigmoid flexure.

Dr. LENDON showed a boy upon whom he had operated successfully for cleft palate a fortnight after the first operation had failed to secure union of the flaps. He remarked that it was important to remove adenoids prior to operating on the cleft.

Dr. H. S. NEWLAND showed a patient upon whom he had operated for extensive cervical lymphadenoma of unilateral distribution.

Pathological Exhibits—

Professor WATSON showed following specimens explanatory of the papers on "Sigmoid Cancer" by Drs. Giles, Marten, and Wilson:—

I.—Annular cancer of the omega loop, from a male, *æ*t. 68. Above the stricture the bowel is hypertrophied, and within the stricture is a nest of impounded bone fragments, probably from a chicken or other small bird. The patient was seized with colic and obstruction whilst on a holiday in a neighbouring State. His symptoms were relieved by copious enemata of olive oil. On his return to Adelaide he was thought to be suffering from prostatic trouble, as a lump could be recognised between the bladder and rectum, which caused some bladder irritation. A consultant having diagnosed ring cancer of the sigmoid, an inguinal colotomy was made on the left side, and a fortnight later the growth was removed and the ends of the bowel united by a Murphy's button with a very thin rim and big lumen. The two halves of the button were inadvertently clamped with an axial rotation of quarter of an inch, so that the out end of the outer longitudinal band was coapted to that of the inner band. The button was loose in the rectum on the eleventh day, and was removed under anæsthetic the following morning. The artificial anus was closed a fortnight later and remained impermeable till his death 13 months afterwards from liver metastasis and contact-cancer of the bladder.

II.—Annular cancer of the omega loop from a male, *æ*t. 62 (now 64). The condition was diagnosed at his very first attack of obstruction, and its removal carried out in two stages by Dr. Giles, as first practised in Australia by Dr. W. Moore, of Melbourne.

III.—Annular cancer of sigmoid, with hypertrophy, dilatation of the afferent bowel, and a nest of impounded grape seeds packed in an ulcerated pocket. The specimen is from a male, *æ*t. 67, whose daughter, an experienced surgical nurse, after more or less successful removal of obstruction by enemata, posture, and laxatives, diagnosed the case as ring cancer of the sigmoid, which had dropped into the pelvis. She brought her father to town, where Dr. J. A. G. Hamilton removed the cancerous bowel through a median incision, having seven days previously performed a preliminary left inguinal colostomy, which he closed a month later. The identical button was used which served in Dr. Giles' case. It made its appearance in the rectum on the evening of the eleventh day, and was removed next morning without an anæsthetic. Nine months later a return of the symptoms necessitated the patient's return to town, and the re-establishment of the artificial anus. A glass marble inserted into the opening in the groin failing to reappear at the anus within 48 hours, digital examination from above revealed the fact that it was caught against a tuberculous semilunar shelf of new growth in the upper rectum, so further operation was not attempted. For the last four months of his life all his fæces passed through the loin opening. The local recurrence in this case was due rather to contact cancer than to growth in associated lymphatics, or to metastasis in the liver.

IV.—Double annular cancer of the sigmoid flexure with artificial anus *in situ*. It is from a male, *æ*t. 60, and is distorted into the shape of a figure of 8, with a cancerous constriction at the point of crossing in both limbs (in the first and in the last part of the omega loop). The associated lymphatic glands are moderately enlarged and form part of the mass, which was removed a month after the making of a left inguinal colostomy for relief of obstruction. Its removal was first attempted through a median incision, but failed on

account of its fixity to the left pelvic wall and its proximity to the artificial anus (1 inch). The artificial anus was therefore closed by suture and mobilised. The old colostomy wound was enlarged, and the mass delivered and excised, and the bowel ends united by through-and-through interrupted catgut sutures, reinforced and covered by seromuscular interrupted silk sutures. For the first few days all went well, motions passed freely. On the seventh day patient died of secondary hæmorrhage from the internal iliac vein, from which the mass had been previously stripped.

V.—Primary ring cancer of the lower portion of pelvic colon, with secondary contact-cancer of the upper portion, which had descended into pelvis. As a rule, the reverse happens, viz., it is the upper portion which causes the contact satellite tumour in the bowel below. The specimen was taken from the dead body of a male, *æ*t. 65, who arrived exhausted at the Adelaide Hospital, where he died during the administration of chloroform for a contemplated inguinal colotomy.

VI.—Ring cancer of sigmoid from the dead body of a male, *æ*t. 45, who followed his vocation as a lumper to within 14 days of his death. A right inguinal incision destined for the caput coli cæcum, opened instead a distended hypertrophied dextriposed loop of the sigmoid three inches above the constriction. Patient died of pneumonia a few days afterwards. I know an old man whose life was prolonged more than four years by a right inguinal colotomy intended for the caput colic, but which fortunately struck the omega loop close above the obstruction instead.

VII.—Ring cancer of the pelvic colon, from Mr. S., musician, *æ*t. 41, who was operated upon *in extremis* by Dr. Cudmore, after several months vigorous treatment for obstruction elsewhere. Dr. Cudmore delivered and excised the loop through a left iliac incision and tied Paul's tubes in the bowel ends. Several applications of the Dupuytreus enterotribe enabled him to re-establish the lumen of the bowel and close the parietal opening. Patient, having gained 42 lb. in weight, returned six months later with obstruction, due to recurrence lower down in the bowel. The artificial anus was re-opened. A glass marble which failed to pass per anum was washed up out of the upper opening, through which, for the remaining eight months of his life, his motions were passed.

VIII.—Ulcerated adherent ring cancer of iliac colon from a male, *æ*t. 67. Removed by the left iliac route. Paul's tubes tied in the bowel ends. Spur subsequently cut down with enterotribe. Patient died of ulceration of the cæcum.

IX.—Ring cancer from a man, *æ*t. 30. It looks as if a string had been tied about the middle of the omega loop. Patient had attacks of colic a couple of months before becoming finally obstructed. He dosed himself for a week in vain with Epsom salts and then sought surgical aid. A small lump felt per rectum was looked upon as an enlarged gland—in reality it was the growth in the omega loop which had gravitated to bottom of pelvis. An exploratory incision in the mid line proving negative, an incision was made over the appendix, which was found healthy; an artificial anus was then made in the caput coli cæcum. Thirty-six days later the median scar was re-opened to free the bowels and omentum, which had become adherent to the back of the scar. The omega loop was then drawn out of the pelvis and the true nature of the case revealed, and the growth excised. The bowel ends were united with two rows of sutures. Liquid fæces without blood ran out of the anus till his death five days later from prolonged toxæmia.

X.—Tubular carcinoma of sigmoid associated with ulceration, which had evidently maintained the patency of the canal. The patient, a woman, *æt.* 37, having made no complaint of previous obstruction. The growth mimicked an adherent parovarian cyst, but was found on opening the abdomen to be a carcinoma of the pelvic colon roofed in by the left broad ligament, which prevented general peritonitis from a minute leak at the seat of the constriction. A cut was made into the vaginal vault for drainage purposes, and the implicated bowel with the adherent left tube and ovary and corresponding portion of the left broad ligament removed between three clamps. The lower segment was closed by suture and anastomosed to the side of the upper segment, the open free end of which was left long to be brought out at the lower end of the parietal wound as a spout. The resulting suprapubic artificial anus kept open for several months, but eventually closed after the rectal segment had regained its tone, so that finally all the fæces passed by the natural orifice.

All the above specimens were of the columnar celled variety of cancer, although in several fibrous tissue apparently dominated the situation. In the case of the female (No. X.) there was much more proliferation of the glandular elements than in the cases of the nine men. In her case also obstruction was not much in evidence.

Dr. MARTEN showed a specimen of cancer of the pelvic colon which he had successfully excised.

Dr. T. G. WILSON showed a specimen of uterus bicornis mucollis, one horn being the seat of hæmatometra.

Dr. H. S. NEWLAND showed some very large lymphadenomatous glands he had removed from the patient mentioned above.

Card Specimens—

Dr. LENDON showed a skiagraph of a bullet in the foot.

Dr. MARTEN showed a skiagraph of a dental plate which had been lodged for some days in a man's gullet. The negative demonstrated how difficult it was for men not constantly using the X-rays to detect such an object as a vulcanite denture.

Dr. H. S. NEWLAND showed:—1. A skiagraph of a calculus lodged in the ureter (right) close to its junction with the bladder. The patient passed the stone the night of the day the photograph was taken. 2. A skiagraph of an old elbow injury. 3. A skiagraph of the spine of a man suffering from Pott's disease. The fifth lumbar vertebra of the lumbo-sacral variety, the transverse process being lumbar in type on the right side, but shaped like a segment of the lateral mass and articulating with the sacrum on the left side.

Dr. MARTEN showed Strauss's sigmoidoscope, and demonstrated its use.

A letter was received from Dr. A. M. Morgan, in which he forwarded his resignation as vice-president owing to his having decided to visit England for six months. It was unanimously agreed that his resignation be not accepted.

The PRESIDENT directed the attention of members to the medallion portrait of the late Dr. Charles Gosse, a past president of the Branch, which had been presented to the Branch by his relations.

Dr. ANSTY GILES read a paper on "Cancer of the Sigmoid Flexure." (See page 126).

Dr. T. G. WILSON read a paper on "A case of Carcinoma of the Sigmoid, complicated by Pyosalpinx." (See page 131).

Dr. R. H. MARTEN said:—I must thank you, sir, for having asked me to open this discussion upon Dr.

Giles' very able and interesting paper. I am sure we have all listened to him with very great interest, and we shall leave the meeting wiser but sadder men, wiser because we have learnt so much from Dr. Giles on "Ring Cancer of the Sigmoid Flexure," but sadder because it will recall to us cases which have occurred in our own practices and which we know now should have been treated by an early exploration as advocated by the author. I must also thank Dr. Giles for allowing me to peruse his thesis before coming to the meeting, and I think the idea of the Council to have papers printed and circulated before our meeting a most admirable one. I quite agree with Dr. Giles as to the difficulties of diagnosis of the condition before symptoms of actual obstruction have shown themselves. The reason for this is that the growth is often small, a mere ring of hardened contraction in the bowel, and most frequently situated in that portion of the intestine which is impalpable per rectum or by abdominal palpation, but I have taken the opportunity of showing you a Strauss' sigmoidoscope; it is useful in some cases, and after passing it up to the obstruction you remove the plunger, then insert the lamp, blow up the bowel with air, and then turn on the light; you should then see the distal surface of the growth, with its small irregular opening; you observe I say, you *should* see, because it is not always possible, even with the instrument, to make a perfect diagnosis, but it is certainly of help, and when in doubt should always be used. I propose to give you short notes of a few cases that I have seen. Some years ago I attended a lady who presented all the early symptoms of a ring cancer, and I felt sure I could feel a growth, and proposed an exploration, but the lady preferred to physic herself with cascara, and has been perfectly well ever since, so I must have been wrong in my diagnosis. The next case I came across was a gentleman who had symptoms which suggested a growth in the sigmoid, and he wisely consented to an exploration; but after carefully examining the intestines, nothing could be discovered, and the patient has remained in good health since. This man had previously suffered from syphilis, and I am inclined to think this was the cause of his symptoms. These were the only two cases where I expected to find a ring cancer, but was mistaken; and my experience agrees with Dr. Giles' that this condition is generally discovered at an emergency operation in cases of intestinal obstruction, when if the previous history is gone into there will be a history of vague pains and meteorism for some weeks or months previous to the complete obstruction which calls for immediate treatment. I have two such cases to quote, but I shall only give you the shortest details. The first was a gentleman I was telegraphed for to see, who lived some 300 miles from here, and on arriving found he had a complete obstruction which had lasted for some days, and attended by acute pain which followed the course of the colon, but came to a complete stop in the left inguinal region. I contented myself with enemata and purgatives the night of my arrival, and decided to explore at daylight if no action had occurred in the night. Next morning I found my efforts had only ended in producing violent vomiting, so immediately opened the abdomen and found a ring cancer of the sigmoid, and it being before the days of Paul's tubes, performed a colotomy. The patient remained fairly comfortable for some two years before his death, but would never consent to any further operation. The second case was a gentleman, aged 64, whom I saw with Dr. O'Leary at Glenelg in November, 1903; he had exactly similar symptoms to the gentleman mentioned above, and on November

13th I explored over the sigmoid and discovered a ring cancer which could be easily delivered through the wound; the intestine was clamped some distance above and below the growth, the latter excised, and I show you here the specimen; the bowel was sutured as well as it could be, but owing to the dilated condition of the upper portion as compared with the lower, this was not satisfactory, and a Paul's tube was tied in, and, acting on the suggestion of Dr. Newland, who was assisting me, a thick layer of gauze was placed underneath to protect the general peritoneal cavity, and at the same time keep the sutured intestine well to the surface. The patient made a good recovery from his parlous state, and on March 20th, 1904, the bowel was resected and joined by means of a Murphy's button; the patient did well till June, 1906, when he died from secondary deposits. He therefore lived in comparative comfort for rather over two and a-half years, and was always deeply grateful for what had been done for him. The difficulty, to my mind, is the diagnosis before there is any obstruction, and if there is obstruction present the best operation to be performed for the benefit of the patient. With regard to the diagnosis before obstruction is present, I should first apply abdominal palpation, to be followed by a bi-manual, either recto-abdominal or vagino-abdominal according to the sex of the patient. Failing in these, I should then make use of the sigmoidoscope, and if no diagnosis could then be made, I should suggest to the patient the advisability of button-holing the peritoneal cavity over the left inguinal region under local (infiltration) anaesthesia. The latter is a very simple proceeding if the infiltration is properly carried out. I button-holed an abdominal cavity last Wednesday for an obscure disease, and the man was able to leave for his home in the far North on Monday morning, that is, four days after the exploration. Supposing a growth was found under local anaesthesia, I should immediately have the patient anaesthetised and proceed to excise the growth. Supposing the growth is first discovered when operating for an intestinal obstruction, the treatment will vary. It must be remembered that the intestine above the growth is distended, inflamed, softened, and contains a most virulent culture of the colon bacillus; it will hold stitches badly, being most likely to leak. In this case you can do one of three things—1. Colotomise, and when all is quiet, resect the growth and suture the bowel. 2. Bring the growth outside the abdomen, tie in a large Paul's tube above the obstruction, and resect later. 3. Resect the growth and tie in a Paul's tube in either end, and anastomose later by a secondary operation. The last method is believed to be the ideal one.

Queensland.

A MEETING of the Queensland Branch was held on Friday, March 6th, at the Technical College, Ann-street, Brisbane; Dr. J. L. Gibson (president) in the chair, and an attendance of fifteen members.

Dr. Robertson was welcomed by the President on his return from his trip to England.

The PRESIDENT showed:—1. A large dermoid removed from the cornea. 2. A child showing a similar condition in both eyes, the tumor in the right eye being very large. 3. A large fibroma of the posterior nares, which had quite blocked the left nostril. Frequent hemorrhages had occurred, and very considerable difficulty was experienced in its removal in consequence of its size and hardness; the shank of the snare having to be specially strengthened in order to avoid

its bending when traction was applied. A small portion of bone came away with it.

Dr. LOVE showed a boy aged nine, suffering from leprosy. He had been born in Brisbane, had lived in Wynnum and Brisbane, and nowhere else. His face was characteristic in appearance; there was some swelling of hands and numbness of toes.

Dr. L'ESTRANGE read notes of a case of acromegaly.

Dr. McLEAN read notes on six cases of operation under stovaine anaesthesia.

The PRESIDENT read notes on the difficulty of diagnosis of aneurism of the third part of the aorta.

New South Wales.

Council Meeting.

THE Council met at the Association Rooms on Tuesday, February 11th, 1908. Present: Drs. Newmarch, Rennie, Dick, Hinder, Crago, Todd, Pockley, Brady, Maitland.

HON. TREASURER'S statement:—

General Account, Credit	£660 3 4
GAZETTE Account, Credit	496 13 0
Draft balance-sheet for year, showing a credit balance for the general account of	£682 10 10
Draft balance sheet of GAZETTE account showing a credit for the year 1907 of	£466 3 3

Members Elected—Drs. John Goodwin Watson Hill, Gundagai; Edmund Harold Molesworth, travelling; Hugo Flecker, German Club; Iza Frances Josephine Coghlan, Liverpool-street, Sydney; James Joseph Gilchrist, Royal North Shore Hospital; Karl Randolph Wilhelm Georgs, Berry; Arthur Charles Cahill, St. Vincent Hospital; Oswald Edgar Bruce Withers, Stanmore.

Report of the sub-committee which had met the delegates of the loyal St. John's Lodge was read.

Resolved—That the report be adopted.

Resolved—That a calendar be prepared for issue to members of the Branch, showing the dates of meetings throughout the year.

It was resolved that resolutions *re* affiliation of local medical associations be submitted to the Branch at the annual meeting to be held on March 27th, 1908.

Resolved—That a sub-committee be appointed to consider the Medical Practitioners Acts, with a view to their amendment.

Sub-committee to consist of Drs. Newmarch, Maitland, Crago, Read and Todd.

Friendly Societies' Association.—Correspondence with the Hon. Secretary of the Friendly Societies' Association of N.S.W., with reference to the form of agreement between medical officer and friendly society, was read.

Eastern Suburbs Medical Association—*re* the Model Lodge agreement and its introduction—to be informed that the Council has the matter in hand.

Letter from Dr. Grace Boelke *re* Norland Training Home, asking for permission to read a paper at a general meeting. Permission granted.

Plans of the proposed new hospital at Walhalla, Victoria, have been submitted to the Premier, who has approved of them, and agreed that the Government would give £300 towards the cost if £500 be raised locally. The mining companies have agreed to contribute, and a sum of £100 per annum has been guaranteed locally for maintenance. The estimated cost of the building is £750, but an additional sum will be required for furniture.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Aplastic Anæmia

Crummer (*Journal of the A.M.A.*, December 21st, 1907) records a case of this nature. A girl, aged 18 years, of good family history, and who had had no previous illness save some slight gastro-intestinal catarrh, in April, 1907, had an attack of generalised muscular pain, which improved immediately under treatment with salicylate of soda. No attention was directed to the tonsils during this illness. A month later she again complained of pain in the limbs and body, but these were not constant nor severe. Two months later she began to look pale and complained of great fatigue. On July 6th it was noted that she was extremely pale, but had not lost flesh. There was no tinge of yellow, but it was the pearly white of an ordinary secondary anæmia. There were no hæmorrhages in the skin or mucous membranes. There was a slight generalised enlargement of the lymphatic glands on careful palpation. There was no evidence of tonsillar infection past or present. Heart normal save for hæmic murmurs. Lungs normal. No enlargement of liver or spleen, and no ascites. No oedema of limbs. Urine was normal. Temperature ranged from 98°F. to 100°F. With exception of occasional nausea with some vomiting no further symptoms developed. Blood examination showed: Red cells 1,060,000, white cells 1533, Hb. 17 per cent., colour index .88. The microscopic examination of the blood showed an absolutely normal appearance of the individual fields in spite of the low blood count. There was no poikilocytosis, and no polychromatosis. No nucleated red cells were found. A differential count of the white cells was difficult on account of the small number present, but about 40 per cent. were lymphocytes. The patient died in three weeks, and no autopsy was obtained. The author considers the case fits in with Laveson's description of this disease: "The essential features of aplastic anæmia being a rapidly fatal course, a marked reduction in the number of red corpuscles, a greater proportionate reduction in the amount of hæmoglobin, resulting in a low colour index; a leucopenia with a relative lymphocytosis, an absence of megaloblasts and usually normoblasts.

Minor Signs of Thyroid Insufficiency.

Levi and Rothschild (*Gazette Des Hôpitaux*, abstracted in *Canadian Practitioner and Review*) point out that it is necessary to recognise the milder degrees of thyroid insufficiency as well as the more complete forms. These milder forms they have named *paroxysmal hypothyrea* and *hypothyrea minima*. *Minor permanent signs*. It is necessary to remember that all the signs to be presently discussed are not always all found in an individual, and one must be careful also not to make a diagnosis on one single sign. *Transitory Oedemas*. In the absence of all albuminuria hypothyrea is manifested by sluggish oedemas of firm enough consistence, situated at the level of the eyelids in the frontal and malar regions. Occasionally there is transitory puffiness of the feet or fingers. Along with this there may be swelling of the vocal cords, oftentimes coming on at the menstrual period. Obstruction of the nasal fossæ is another sign. There is also a thinning of the eyebrows at their outer margin. This is due to a keratosis pilaris or to a developmental error, and is extremely common in those suffering from thyroid insufficiency. *Variations of heat production*. The thyroid gland has a thermogenic function, and a

series of symptoms depend upon an imperfect performance of this function of the gland. Chilliness of the extremities, or cold confined to one or more extremities, in the back or thigh or general. This is worse in the winter time. These patients also suffer from vasomotor disturbance, pale extremities associated with numbness of the hands and fingers; or their hands may be bluish in colour, and chilblains are frequent. A more severe disturbance is manifested by chills, more severe in the dorsal region, and generally occurring in the afternoon between 4 and 5 o'clock; or they may occur directly after meals. They may be momentary or prolonged. In a certain number of cases the body temperature is lower than normal in the daytime and is elevated at night. Patients with subnormal temperatures occasionally present an exquisite hypersæsthesia to cold and are subject to auto-infections, such as coryza. Among other symptoms referable to this defective functioning of the thyroid may be mentioned constipation, fatigue coming on after slight exercise, and usually seen in the morning, anorexia, headache either frontal, such as is experienced at the onset of a coryza, or occipital with a tender point at level of the occipital nerve, more intense in the morning and disappearing towards evening, muscular pains, lumbago, neuralgia, etc. Briquet of Armentiers and Lovand of Carlsbad have shown that sleep is regulated by the thyroid gland. Patients with thyroid insufficiency have need of a great deal of sleep, and are sleepy after meals. Thyroid medication diminished the need of sleep, and if pushed to excess causes insomnia. Obesity is another symptom due to this cause, as well as physical and mental backwardness and early senility manifested by varicose veins, hæmorrhoids, cutaneous hæmorrhages, etc. Moreover, patients with thyroid insufficiency fall an easy prey to infection of the mucous membranes; pharyngitis, tonsillitis, herpes, etc., are common in these subjects. Migraine should draw our attention to a possibility of hypothyrea, for it is often of thyroid origin. It is found more often in females. Urticaria and pruritus are frequent. Hertoghe has shown that thyroid medication has an inhibitory action on the menstrual flow, and hence menorrhagia is one of the symptoms met with in cases of hypothyrea. It is important to remember that many times well recognised symptoms may appear side by side with others which conflict with the diagnosis. Thus, instead of constipation there may be diarrhoea; insomnia in place of somnolence. A recognition of these various symptoms as being due to thyroid insufficiency will often lead one to correct diagnosis and suggest the appropriate treatment.

The Prophylaxis and General Management of Rheumatic Fever.

Solis-Cohen (*Journal of the A.M.A.*, December 21st, 1907) says that the prophylaxis of acute articular rheumatism has four phases. These refer respectively to (1) the initial attack; (2) the complications; (3) relapses; (4) recurrences.

All are agreed that the condition called acute articular rheumatism is a special form of multiple arthritis and that it is an infection. The author inclines to the view also now that possibly there is a group of organisms, any one of which may under favourable conditions give rise to an attack of this disease. It is more probable that among these organisms are those which ordinarily inhabit harmlessly the mouth, nose, and throat, since it is not uncommon for the first sign of the infection, which is afterwards expressed by joint phenomena, cardiac disease, etc., to be found in the tonsil and other faucial and buccal structures. Moreover experience warrants the

assertion that, as any certain individual out of all who are exposed to cold and to the specific germ or germs, manifest the infection, these individual possess a certain susceptibility, or diathesis. Of the nature of this diathesis it is impossible to speak at present. Thus the first phase of prophylaxis must be determined by these considerations. The second phase of prophylaxis is that of the complications, and especially of the dangerous cardiac complications. This consists in rest, absolute, rigidly enforced and prolonged, rest both mental and physical. The great majority of the chronic cardiac lesions which follow acute rheumatism are undoubtedly due to a neglect of rest. But it is often difficult to enforce rest, especially in "light" cases of rheumatism. The rest should be continued for six to nine weeks and until all danger of straining the weakened and infiltrated heart muscle by full use too soon after recovery, since it is the cardiac muscle rather than the valves to which we must look more carefully. If in spite of the judicious use of salicylates the pain tends to make the patient restless, local analgesic applications, the administration of bromides, codein or morphine may be indicated as measures conducive to rest. Convalescence must be skilfully managed, the patient being allowed only very gradually to resume full activity. Among the more direct therapeutic measures indicated is the application of blisters to the præcordium. Alkalies should be administered so as to make the urine alkaline. But with anæmic patients and those who have had many previous attacks, the tincture of the chloride of iron in doses of 20-30 minims, sufficiently diluted, should be given every three hours. For the prevention of recurrences, as well as of the initial attack, scrupulous attention should be given to mouth, nose and throat. This includes regulation of stomach and bowels, attention to tongue and teeth; treatment of nasal catarrh if present; removal of tonsils and adenoids; in general to get rid of any residual focus of infection, and to keep the alimentary and respiratory mucous membranes clean and healthy. The avoidance of exposure to cold, draughts and chills is necessary, and the body should be accustomed to changes in temperature by cold baths followed by massage or vigorous friction. Regular and efficient elimination of waste products by the urine and feces must be secured. The action of the skin should be favoured by an occasional "sweat." To this end the electric light bath may be used with advantage. An important factor in prophylaxis is the regulation of the diet. The food should be simple and nutritious, and chosen so as to yield a minimum of nitrogenous waste. The carbo-hydrates should be cut down to the lowest point consistent with the maintenance of nutrition, and oils and fats substituted. This is necessary so as to avoid fermentative processes in the gastrointestinal tract, and also because patients with the rheumatic diathesis exhibit a failure in carbo-hydrate metabolism. In general, milk, and milk products, cereals, fruits, nuts and green vegetables should form the principal part of the diet. Pork, veal, crustaceans, hashes and made-dishes should be avoided, as well as pickles, sweets and pastry. In cases with persistent pain and stiffness, mild alkaline waters are useful.

Non-Diphtheritic Membranous Croup.

Jacod (*Semaine Médicale*, abstracted in *Journal of A.M.A.*, November, 23rd, 1907), reviews the literature on the subject of membranous croup independent of the diphtheria bacillus, and stated that only six authentic cases are on record. The author himself, however, had encountered nine cases in the diphtheria ward in the course of two to three months. The clinical picture was that of membranous croup, which from three to seven

bacteriological tests of the false membrane failed to indicate the diphtheria bacillus in a single instance. None of the patients had any symptoms of coryza, but the temperature was much higher than in the diphtheritic group, and the glands in the neck were not swollen or tender. The infection seems to affect the entire respiratory tract from the start, so that the symptoms on the part of bronchi and lungs were pronounced from the first. The entire larynx and bronchi were seen to be involved in the five cases on which an autopsy was performed. The false membrane extended to the bifurcation, and even into large bronchi, while the lungs were congested with foci of bronchopneumonia. Unless there is marked relief from the expulsion of false membrane early, the patient does not seem to be relieved by intubation or antitoxin injections. The temperature remains high and the pulmonary symptoms predominate. In the nine cases the pneumococcus was found once, staphylococcus almost alone in five cases, the streptococcus in two, and mixed infection in others. In the presence of these bacteriological findings the physician is practically disarmed. Local treatment by warm baths, local revulsants, inhalation of oxygen, etc., must be used. Tracheotomy was done in three cases, and these three patients recovered. Only seven of the total 15 patients recovered; two were adults, the rest children under eight.

PATHOLOGY.

Abscess of Bone caused by an Intermediate Bacillus allied to *B. Paratyphosus*.

Bushnell (*Proc. Roy. Soc. Med.*, Dec., 1907) records the following case:—A male, aged 41, was found to be suffering from acute suppurative periostitis. There was a history of a recent attack of "typhoid" five weeks previously, and this illness came on during convalescence. There was a swelling about the size of a bantam egg above the centre and in front of the left tibia. This was tender, fluctuating, but not discoloured, and there was no sign of disease elsewhere. The abscess was incised, and about 100 c.c. of thin pus evacuated from beneath the periosteum; the bone beneath was not softened. The patient rapidly recovered. The history of the illness, which was diagnosed as "typhoid," was that the patient had, ten days previous to the onset of the illness, eaten of some whelks vendred off a barrow. Other members of the patient's family had eaten these, and were all ill immediately afterwards with diarrhoea and sickness, but were all well in a few days. The illness followed a typhoidal course, but there was diarrhoea only for the first five or six days. "Rose spots" were fairly abundant. About the twelfth to fourteenth day of his illness the blood gave a negative Widal reaction. During convalescence pain was complained of in the ankle and lower part of the tibia. Bacteriological examination of the pus obtained from the abscess showed the presence of a slender Gram negative bacillus. Inoculated in broth and incubated at 37° C. it gave uniform turbidity without scum in 24 hours. On gelatine incubated at 22° C. there were numerous small transparent colonies with rounded or somewhat irregular borders, and did not liquefy gelatine. On agar, it grew as a moist semi-transparent growth; it produced no spores, no pigment, and possessed no proteolytic powers; it fermented dextrose, maltose and mannite with gas formation; lactose was unaffected; sucrose was unaffected, but not rendered alkaline, on two occasions milk was acidified in 24 hours; and acidified and curdled in 48 hours. There was no indol formed in peptone water in 14 days. The author remarks that a bone abscess due to paratyphoid

infection is rare. There is presumptive evidence from the history, clinical account and absence of typhoid serum reaction, that the first illness was a paratyphoid attack. The bacillus isolated from the pus agglutinated the patient's blood serum and clearly caused the suppurative periostitis. As it coagulated and acidified milk and fermented glucose and maltose with gas, it was not typhoid, and lactose being practically unaffected it was not *B. coli communis*. There is no doubt that the diagnosis of paratyphoid could have been arrived at if this bacillus had been employed in the first illness for the serum reaction. Keen states that *B. Typhi* has been isolated from 51 cases of true lesions following typhoid on 38 occasions. Osler mentions six cases of bone lesions among the sequelæ of typhoid fever under his care in one year.

Experimental Arterial Degeneration.

Frank (*Medical Record*, December 14th, 1907) records some experiments on this work. Five rabbits were injected daily with a solution made by dissolving one gramme of ergotine in 100 cc. of physiological salt solution. Ergotine was selected so as to avoid the impurities contained in ergot itself. The dosage was at first three drops, and gradually increased to ten drops. After 11 injections one rabbit was killed. The remaining four rabbits received eight more injections each, after which the injections ceased. It was noticed shortly afterwards that the rabbits were failing in health. Of these four, one died two days after the injections were stopped, a second three days later, a third six days, and the fourth 21 days later. On autopsy the one which died two days after cessation of the injections showed the liver and gall-bladder studded with hard white nodules. These were composed of calcium carbonate. They contained no coccidia, but after decalcification of the liver on staining with hæmatoxylin and eosin these nodules were found to be calcified coccidial cysts. Two of the rabbits on microscopic examination of the stained sections showed areas of necrosis of the liver, with proliferation of the connective tissue cells, not only in the portal spaces but also in the liver lobules. Four of the five showed hyperplasia of the lymphatic elements of the spleen, and increase in size of the malpighian corpuscles. Three out of the five showed organising thrombi in the arteries of the lungs with a proliferation of the lining endothelial cells and thickening of the arterial wall. One showed a nodule projecting into the lumen of the aorta about half an inch above the aortic valves. There was a thickening of the media in which the elastic fibres were somewhat broken, and the nuclei of the muscle fibres ran longitudinally instead of transversely. This thickening was not general throughout the media. The author considers his results so far as concerns arterio-sclerosis as negative. He refers to the work of Joshi in 1903, who produced arterio-sclerotic lesions in rabbits by the intravenous injections of adrenalin, and to that of Fischer, Lissauer, Pearce and Stanton, Erb and others with the same substance. After these experiments were recorded several theories were propounded to explain the result. Whether the lesions were due to a cachexia resulting from the frequent injections continued over long periods, or to an interference with the nutrition of the vascular wall through a constriction of the vasa vasorum, or to the direct toxic action of the drug itself, or to an increase in blood pressure resulting from it, has been answered differently. Further experimental work has been done with barium chloride and nicotine, and in each case arterio-sclerotic lesions have been produced. The author also refers to

some earlier experimental work on the subject. In 1877 Di Giovanni by cutting the cervical sympathetic nerve of dogs, first on one side and then on the other, produced atheromatous incrustations on the aortic valves and in the descending aorta. In 1886 Schnell repeated the experiments of Di Giovanni with some, but not equal success, and recently Pio and Bonnamour have reported good results after the same experiments on rabbits. Carrel and Guthrie have produced arterio-sclerosis in the dog by causing a hypertension in an artery (renal) by transplanting it and directing its blood into a venous plexus of a smaller total capacity than the artery itself. It is the maintaining of the resulting hypertension which is responsible for the resulting arterial changes. These two sets of experiments after they have been repeated and corroborated and extended more fully, in eliminating the main objections to the inoculation experiments—the toxicity of the substances injected—incline further than any other towards high blood pressure as being the fundamental causative factor in arterio-sclerosis.

Experimental Hypertrophy of the Islands of Langerhans.

Lazarus (*Munch. med. Wochen.*, abstracted in *Medical Record*, December 14th, 1907) describes experiments on guinea-pigs, which were given phloridzin or adrenalin during long periods of time, either by injection or by mouth. The phloridzin animals showed a very great hyperplasia of the pancreas, in which the enlargement of the islands was most marked, and the adrenalin animals showed similar though less pronounced lesions. Well marked arterio-sclerosis was present, involving particularly the abdominal aorta. The author considers that his experiments demonstrate the functional and anatomical independence of the islands, which are sharply differentiated from the gland tissue, and show that it is possible to increase the number and size of the islands experimentally as well as to augment their blood supply. It is likely that the islands have some function in regulating sugar metabolism and that it is possible that in human diabetes some therapeutic application may be made of these principles. Phloridzin diabetes is different from the disease in man, for in the former there is hypoglycæmia with hypertrophy of the islands; while in the latter there is hyperglycæmia and frequently atrophy of the islands. Further experiment is necessary to determine whether the islands of the human pancreas in diabetes are susceptible of stimulation by the use of phloridzin.

PÆDIATRICS.

A Case of Infantile Scurvy.

J. E. Bullock (*Berlin Klin. Woch.*, No. 44, S. 1421, *Gesellschaft der Charité Aerzte*, July, 1907, *The British Journal of Children's Diseases*, December, 1907) writes that Heubner showed a case of infantile scurvy, pointing out the striking pallor and an appearance which is seldom seen, but which was particularly well marked in his case, viz., under both eyes a blue, half-moon shaped discolouration, which looked as if the child had been painted. He showed an illustration of another case, in which the distinct outline of this discolouration was seen beneath both eyes. It is produced by a hæmorrhagic extravasation into the subcutaneous connective tissue. A third symptom, shown in his case, he looked upon as pathognomonic, and though he had met with it in the most varied cases of other painful diseases, such as abscess, osteomyelitis, and joint tuberculosis, he had

never found it so pronounced as in infantile scurvy. In the patient the regions of both knee-joints were swollen from a thickening of the femoral epiphysis, and the slightest pressure on this swelling set up a thoroughly characteristic reflex phenomenon, the child jerking both arms into the air, with a piteous cry. He had pointed this out in his handbook on the subject, but it was little noticed by others. He showed that this symptom was still apparent in his case, pressure on the epiphysis always causing irritation, although the child was on the way to recovery. There were other evidences of the disease, such as Barlow had pointed out. In a radiograph there was shown a whitish outline at the junction of the diaphysis with the epiphysis. There was also seen, by the side of the bone, the dark line which showed a thickening of the periosteum, in those situations in which the periosteal hæmorrhages between the periosteum and the bone take place. He produced two photographs, in one case a diseased rib, showing a fracture, the separation of the fragments, the thick zone of provisional ossification, and the shaft. Between the rudimentary shaft and the periosteum there was a thick layer of bluish matter, which would be either blood-clot or new tissue. A similar photograph showed a heaped-up collection of blood-clot or new tissue. He stated that atrophy of the bone is a characteristic pathological change in infantile scurvy, and also a cessation of growth, as in congenital syphilis. The osteoblasts disappear, bone growth ceases, leaving fine ridges, which soon disappear, and a peculiar atrophic bone marrow, poor in cells, with medullary stroma, is left. He showed also a photograph of the atrophied end of a diaphysis; it was very brittle, so that small fractures would take place easily everywhere, and to that he attributed an explanation of the characteristic reflex phenomenon to which he had alluded above. The thickened periosteum being very tender, because the bone is broken in so many places, the slightest pressure brings about the reflex. In another illustration he showed the unusually abundant formation of hæmorrhages in the bone. He thought that some authors say quite rightly that the hæmorrhages are traumatic and secondary, but it is evident that also a real hæmorrhagic diathesis exists, as shown by the marks under the eyes in the patient before them.

A Case of Rheumatic Hyperpyrexia in a Child of six.

G. H. Look, M.R.C.S., L.R.C.P. (*The British Journal of Children's Diseases*, December, 1907) writes:—"This rare and fatal complication of acute rheumatism, hitherto, as far as I can discover, unrecorded in so young a patient, occurred recently in a girl aged six years whom I had attended at birth and since, whenever she was ill. Her father had worked in compressed air caissons for years, and always successfully passed the periodical medical examinations to which such workers are subjected. Her mother was young and perfectly healthy. A maternal aunt had suffered from rheumatism, otherwise the family history was free from this disease and good in other respects. The child, with the exception of measles, followed by whooping-cough, enjoyed good health during infancy. She grew up healthy, of alert intellect, and engaging disposition and manners. A year ago she passed through an attack of chorea, which subsided during six weeks' complete rest in bed; and when she was brought to me in January, 1907, to report progress she was fit and well, with the exception of a rough systolic murmur at the cardiac

apex. I could not make out that the heart was appreciably enlarged, but the murmur was conducted into the axilla. On September 10th, 1907, she sickened for left lobar pneumonia which, with a temperature ranging between 102° and 103° F., and no uncommon features, terminated by crisis on the fifth day. A day or two after this crisis there was a return of the choreiform movements which, at first mild and confined to the left side, subsequently became general and severe. On September 20th pain in the left hip was complained of, and the temperature rose to 100° F. The child was enveloped in cotton-wool, and salicylate of sodium (5 gr.) in an alkaline mixture was given every four hours. On the next day (September 21st) other joints were involved, the temperature was 101° F., and the case was a typical one of acute rheumatism with chorea. The dose of salicylate of sodium was doubled. The following day (September 22nd) at 11 a.m. the temperature was 105° F. After tepid sponging the nurse reported a drop to 104.5° F. Salicylate of sodium (10 gr.) was administered every hour. At 6 p.m. the temperature had risen to 107° F. An icepack was ordered, and at 8.30 p.m. the temperature had fallen to 105° F. This application of cold was not well borne; alarming cyanosis and embarrassment of respiration followed. The heart distinctly dilated, and the sounds were almost inaudible. A drachm of brandy was given and ordered every hour throughout the night; the salicylate, with the addition of 3 minims of tincture of digitalis, was continued. Ice was kept applied to the head and nape of neck. The next day (September 23rd) at 10 a.m. the temperature was 108° F., pulse 110, respiration 68. A graduated bath was prepared, but while waiting for a fresh supply of ice and before immersion, the temperature in less than an hour rose to 110° F. At this moment death occurred somewhat suddenly. An hour after death the temperature was 109° F. These temperatures were taken in the rectum by a trained nurse and verified by me. The last observation was kindly confirmed by Mr. S. H. Greene, of Kensington. The outset of this period of abnormal temperature was not associated, as far as the chorea would allow me to observe, with any fresh endo- or peri-carditis. The swelling of the joints was not so marked, but it was impossible to obtain anything from the child as to the degree of pain in them. The pulse, though feeble, was never greatly hurried, but the respirations were very frequent (60-68) and noisily panting in character. The most marked feature was the complete suppression of sweating. There was a plentiful crop of of sudaminal vesicles from former sweats, but the skin was quite dry and pungently hot throughout. There was no sleep during the presence of the hyperpyrexia; on the other hand, there was no delirium or mania. The child, though dazed, asked for and knew her mother to the end, and the severe choreic movements ceased only with death."

Pylorospasm.

Heubner (*Monatschr. f. Kinder Heilk.*, Bd., v. S. 355) read a paper on this subject. He has observed 49 cases out of a clinic of 10,000 children. Of 21 cases that were followed, 18 were alive a year later. The data as regards age, sex and symptoms agree with those of other observers. Heubner considers that the condition is a muscle hypertrophy, not only of the pylorus, but often of the rest of the stomach, that is, secondary to a functional disturbance, or, in other words, it is not a primary malformation or new growth. He recommends medical treatment in all cases, and only surgical interference if this fails.

MEDICAL MISCELLANEOUS

The Chicago Tuberculosis Institute is inaugurating a series of dispensaries in connection with established hospitals and colleges for the purpose of early diagnosis and home control of consumption—such control as will give the patient opportunity to recover and will safeguard the other members of the family and the fellow-workers of the person sick.

In the first week of December, according to official statistics from 245 out of the 285 primary schools of Berlin, no fewer than 11,947 children attended school, in most cases without breakfast, and in all cases without the prospect of obtaining a mid-day meal at home. Of those, 4198 receive a simple daily meal from the 14 canteens belonging to the Children's Canteen Society; the other 7449 are totally unprovided for.

The French naval authorities are attempting, apparently without great success, to restrict the use of opium by the officers and men, which is said to be very widespread, and is alleged as the underlying cause of some of the disasters that have recently occurred on the vessels. It was discovered that in Marseilles users of the drug were obtaining it from one of the dealers in Oriental curiosities, and on searching the shops of the latter several thousand dollars worth of opium was found and confiscated.

The Bavarian War Ministry has just issued a preliminary report on tests made to determine the effect of the use of alcoholic beverages on marksmanship. Squads of men were alternately kept abstinent for a week and during the next week allowed definite amounts of alcohol. Already over 10,000 shots have been fired under these conditions, with the result that the drinking men made better scores when firing singly than did those belonging to the squad which had been kept abstinent. In the field and volley firing by companies, however, the sections which had been entirely abstemious attained slightly better results than their stimulated comrades. These results are somewhat at variance with those obtained some time ago in the Swiss army, which we believe demonstrated that the non-alcoholic soldiers were more reliable shots than the drinkers.

The profession in Vienna seized the occasion of the 25th anniversary of the founding of the Neurologic Institute of the University to do homage to its founder and director, Heinrich Obersteiner. He reached his 60th birthday just ten days before, and his numerous important contributions to the anatomy, physiology and pathology of the central nervous system were reviewed by the various speakers at the jubilee celebration. Obersteiner has presented the institute with an unrivalled library on the nervous system, and has also endowed it amply to keep up the library and museum.

Professor Loeffler and Dr. Russ report from the Hygienic Institute of the University of Greifswald that they have been able to cure in a comparatively short time the cases of sleeping sickness induced experimentally in animals by the administration of arsenious acid. The drug may be given by the mouth or injected into the blood stream. It also produces immunity to the disease, so that it cannot be induced experimentally in an animal that has been treated for a time by the arsenious acid. The acid in a solution of 1 in 200,000 destroys the trypanosomes.

The C.G.H. (Western) Branch of the B.M.A. after an exhaustive discussion on the question has instructed its Medico-Political Committee to arrange for interviewing candidates for Parliament on matters of importance to the profession. The committee has arranged to perform this duty in the Cape Peninsula, and has deputed members of the Branch, in conjunction with their local *confrères*, to do the same elsewhere in the Branch area. The Branch has formulated its views on the more important points upon which it feels it has the support of practically the whole profession. It is to be hoped that other branches will follow suit, and to assist them in doing so the Western Branch has sent to branch secretaries in Cape Colony a statement of its arrangements.

An important and instructive discussion took place at a recent meeting of the Cambridge Medical Society on the question of instructing teachers in the principles of hygiene. Professor Sims Woodhead gave an account of an experimental series of lectures he has been giving during the last 12 months to school teachers, at the request of the Cambridge County Education Committee, and he expressed great satisfaction at the keenness and intelligence displayed by the teachers in the subject. He was especially impressed by the capacity they evinced for applying the principles he taught them to their everyday work, and by their keen appreciation of the practical work. It was pointed out, however, that while such a voluntary course can be arranged at an education centre like Cambridge for teachers already engaged in work in the schools, similar facilities are not available in other parts of the country. All those who took part in the discussion, therefore, including Professor Clifford Allbutt and Professor Howard Marsh, were emphatic on the necessity that hygiene should form a regular part of the curriculum of all institutions in which students are trained to become teachers in schools of all grades, and a resolution was adopted to this effect. Not only would the teachers be thereby qualified to impart the rudiments of hygiene to their pupils, but by the knowledge they acquired, their power of training and developing the minds and bodies of the children under their care would be greatly enhanced.

An announcement has just been made of an additional gift of \$2,000,000 by John D. Rockefeller to the Rockefeller Institute for Medical Research, which brings the aggregate of his contributions to this cause up to \$3,800,000. In his letter to the directors stating his intention, Mr. Rockefeller expresses his gratification at the results thus far achieved by the Institute, and his confident anticipation that the enlargement of its scientific work now made possible will lead to increased success in the future.

In Iceland, according to the census of 1905, the people live on an average to the age of 61·8 years, which is nearly double the mean duration of life as it was computed a generation ago. Sweden and Norway are also very healthful countries, the mean duration of life in the former being 50·02, and in Norway 49·94 years. It is doubtful if any part of the world can exceed Iceland with regard to longevity. Perhaps this is because the lives of most of its people are simple and unexciting, and there is very little in their lives either to stimulate or depress the pulse. However, states the *Sun*, the summer tourist is reaching the island in large numbers every year, and it is now tied to Europe by a submarine cable. The next census may show the effect of these innovations upon Iceland's longevity-record.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Annual Meeting of the Royal College of Surgeons—The Progress of Hypnotism—The New Quarterly—The National Hospital for the Paralysed and Epileptic—The Royal Army Medical School—Another Victim to Science—The Volunteer Medical Service.

MR. HENRY MORRIS, President of the Royal College of Surgeons, presided over the annual meeting, which was held at the College on November 21st. In the course of his address the President referred to the question of the admission of women to the examinations of the College, and said that having made themselves clear as to their legal position, the Council passed a resolution in favour of the admission of women, but as a matter of constitutional necessity and in fulfilment of the conditions under which the joint board was brought into existence, the adoption of the principle must depend on the attitude of the Royal College of Physicians, to whom the question had been referred, not in any way with a view of getting out of or gaining moral support for the admission of women. It was most desirable that every step should be taken in a proper and amicable manner between the two colleges; and at present he was not able to indicate what the decision of the College of Physicians might be; but if it was in favour of the admission of women a vote of the Fellows and members of the College of Surgeons would have to be taken, and on the result of that vote the final decision of the Council would very largely depend. As regarded the action of the Council of the College of Surgeons in declining to take any action on the resolutions passed almost unanimously every year for more than 20 years past, advocating representation of Fellows and members on the Council, he assured the meeting that the Council was not actuated by any hostility or opposition to the Fellows and members, but by the feeling that the suggested innovation was not in the nature of a desirable reform. The alteration in the regulations of the Con-joint Examining Board allowing students presenting themselves for examination in chemistry and physics who passed in one of these subjects to present themselves again for examination in the other subject alone, instead of being required to pass in both subjects at one and the same time, would facilitate the education of students, and would, he hoped, result in reducing to five years the curriculum, which now extended to nearly seven years. Though it was not considered desirable to grant a diploma in tropical medicine, the Council had decided to appoint assessors who, if satisfied with the quality of the examinations in tropical medicine passed by candidates who possessed the diplomas of the Royal College of Surgeons, should be empowered to sign their certificates. In connection with the gift of £40,000 by Mr. and Mrs. Bischoffsheim to the Imperial Cancer Research Fund, he desired it to be known that the interest on that sum would be ear-marked for application to matters of research in connection with medicine, so that if the inquiry into cancer should come to a successful termination the money would be available for research in connection with other diseases. On the motion of Mr. F. W. Collingwood, seconded by Mr. H. Elliot-Blake, a resolution was adopted asking the President and Council to use their moral influence with hospital authorities to recognise members of the College who are also in all cases licentiates of the Royal College of Physicians, as having equal rights with Provincial, Scottish and Irish graduates to become candidates for

hospital appointments. The other business was unimportant and, for the most part, of a routine nature.

At the Doré Gallery, New Bond street, on November 18th, Dr. Forbes Winslow delivered an address in aid of the funds of the Royal Waterloo Hospital for Children and Women. He chose for his subject the progress of hypnotism and its present position in the scientific world. In the course of his remarks he traced the progress of hypnotism from the time of Mesmer in the 18th century to the present day. He divided the schools of hypnotism into three—first, that of Mesmer; second, the Nancy school; and, third, the Paris school, originally carried on by Charcot. Dr. Winslow considered that the theory and views held by the Nancy school, founded by Professor Liebault, who contended that suggestion formed the most important factor in producing hypnosis, was the one which he desired to advocate and support. It was an erroneous view to imagine that any harm could ensue from hypnotism, and he had never known of a case where this had occurred. He denied that anyone under the control of a hypnotiser could be made to commit a crime against his will. He denied the possibility of hypnotising anyone so that whilst giving evidence in a court of law he might be so influenced as to be subservient to the will of the hypnotiser. Dr. Winslow considered that a suggestion made to anyone hypnotised would stop short at crime. This would not apply, however, should the hypnotised individual be one who would commit crime under ordinary circumstances. He thought that hypnotism in the detection of crime would form a prominent feature in the criminal transactions of the future.

The latest addition to periodical scientific literature has just appeared under the title of the "New Quarterly." The contents, which comprise the following articles, justify its claim to recognition, and encourage the hope that it may find a useful place among contemporary magazines and reviews. The opening dissertation is by Lord Rayleigh, who deals in a most interesting manner with the question: "How do we perceive the direction of sound?" "The Fire" is the title of a contribution by Mr. Max Beerbohm, who is followed by the Hon. Bertrand Russell on "The Study of Mathematics." Among other subjects of interest are: "The Last Elizabethan," by Mr. G. L. Strachey; "A Triptych of Poets" (Mrs. Hemans, George Darley and Thomas Hood), by Mr. Arthur Symonds; "Can we Detect our Drift through Space?" by the Hon. R. J. Strutt; and "Biology and Politics," by Mr. G. A. Paley.

At a meeting of the Governors of the National Hospital for the Paralysed and Epileptic, held at Queen Square on November 19th, it was announced that two years hence the hospital would celebrate its jubilee, and it was resolved that an effort should be made to celebrate the occasion by raising £10,000 for alterations and improvements. Mr. F. Macmillan, chairman of the Board of Management, after 11 pensioners had been elected to pensions varying from £20 to £10 a year, briefly traced the history and growth of the hospital, pointing out that it received patients from all over the country, while doctors and students came to it even from abroad. As the institution was nearing its jubilee they desired worthily to commemorate that occasion, and they had therefore decided to carry out such further recommendations of the Fry Committee of 1901, as lack of funds had hitherto prevented them from giving effect to. By doing so, although £10,000 would be required, they would not be increasing the working expenditure of the hospital. They already had the necessary freehold land, ready cleared for building.

One part of the institution which was seriously cramped was the out-patients' department, the attendances in which, now nearly 41,000 a year, had more than doubled since 1881, while the accommodation for the nurses was unfavourably alluded to in the report of the Fry Committee, and they intended to add 25 new rooms for them, bringing the total up to 51. Each nurse would then have a separate bedroom, and the living-rooms could be improved. A new lift would make the isolation department more accessible, and a spacious physical exercise room would be provided. It was intended to have a special committee to raise the funds, and he proposed, "That the building scheme be approved and that Her Royal Highness the Duchess of Albany be respectfully asked to form a committee to raise the necessary funds." The Duchess of Albany, who was present, graciously consented to become president of the Jubilee Committee.

The War Office announces that in order to utilise the valuable clinical field provided by Queen Alexandra's military hospital the Army Council have decided to associate the hospital with the Royal Army Medical College, as an integral part of its medical school for the purpose of furthering the earlier and advanced education of officers of the Royal Army Medical Corps. They have further decided to obtain the assistance and co-operation of certain acknowledged leaders of the civil medical profession as consultants in medicine and surgery. The following appointments have been approved:—To be consulting surgeons, A. E. Barker, Esq., F.R.C.S., Professor of Surgery, University College of London; A. A. Bowlby, Esq., C.M.G., F.R.C.S., surgeon to St. Bartholomew's Hospital; and G. H. Makins, Esq., C.B., F.R.C.S., surgeon to St. Thomas's Hospital. To be consulting physicians: Dr. J. Mitchell Bruce, F.R.C.P., consulting physician, Charing Cross Hospital; Dr. J. Kingston Fowler, F.R.C.P., physician to the Middlesex Hospital; Dr. W. Osler, F.R.S., F.R.C.P., Regius Professor of Medicine, University of Oxford.

The death is announced, at the age of 28, of Dr. Maeter Pirrie, who, after gaining the Carnegie Research Fellowship in Anthropology, was appointed anthropologist to the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum, and went out to the Soudan in the autumn of 1906. Under the direction of Dr. Andrew Balfour, the Director of the Laboratories, Dr. Pirrie made his first expedition up the Nile to the southern limits of the Soudan, and penetrated to remote parts of the Behr-el-Ghazal. A second expedition took him to the borders of Abyssinia. On both occasions he passed through some of the most pestilential regions of Africa in connection with certain anthropological and physiological researches appertaining to tropical diseases upon which the laboratories are engaged. He contracted fever, and was compelled to return to England. He presented a paper on his expeditions at the last meeting of the British Association, but was prevented from being present on account of his illness. Dr. Pirrie brought back a valuable collection of objects of scientific interest, and at intervals during his illness he was engaged on his report to the Carnegie Institute and the Wellcome Research Laboratories, Khartoum, for which institutions he acted jointly in the important work he carried out in the Soudan.

The provision of a competent Volunteer Medical Service for the new Territorial Army is at present exciting considerable interest, and was made the subject of an instructive address to the Incorporated Society of Medical Officers of Health, on November 7th,

by the Director-General of the Army Medical Department. He pointed out that at present the general organisation of the medical service of the Volunteer Force was admittedly defective. There were no hospitals, not a single medical officer designated specially for disease prevention, no schemes for the isolation of infectious diseases, no special establishments for supervision of camp sanitation, no organised method for disseminating in peace the necessary knowledge of military sanitation among the officers and men, and, above all, no sanitary committee supervising the whole scheme of sanitation in time of war. The British Medical Association had placed before the Secretary of State the outlines of a scheme for the general reorganisation of the Volunteer Medical Service, and effect was about to be given to its proposals. In designing the new scheme he had endeavoured to act upon the principle that the Volunteer Medical Service should be an exact reflection of the Medical Service of the regular army with the added advantage of a regimental medical system in time of peace. It was obvious that regard must be had to sanitation, and an organised military department of sanitation must, therefore, be called into existence. He proposed to ask the medical officers of health of the country to enrol themselves in the Medical Corps of the territorial force, to take voluntarily upon themselves the duty of considering the problems to be solved during active operations within their own home area, and to be ready, should the day come, to place either knowledge and experience at the disposal of the authorities commanding their divisions of the territorial force. He required no conditions of service except the obligation to assist in the event of war at home, and no service whatever during peace. But if in peace time a health officer would desire to spend a day or a week with the division to which he belonged he would advocate that the regulations might be so framed as to admit of this. Sir Alfred Keogh then related, in outline, his scheme for the instruction of non-commissioned officers in the principles of sanitation, and in conclusion said:—"The scheme is a simple one—it must be simple to be practically effective. It is an invitation to the members of the public health branch of our profession to place themselves *a la suite* of the territorial force, a condition well recognised in Continental armies. I am about to make a similar appeal to the leaders of our profession in the medical and surgical branches. I ask them also to become *a la suite* members of the national force from which they have hitherto been, so to speak, excluded. It has been said by many that membership of a military organisation reacts beneficially upon the country. Surely I may claim that one of the main advantages of the system I advocate here to-night (involving as it does the dissemination of knowledge of the origin and spread of disease—knowledge only recently acquired by ourselves) is not only wholly to the advantage of the territorial force, but is wholly to the advantage of the nation. Nothing that I propose is useless in civil life. The whole is a propagation of knowledge of natural laws. Half the sanitary difficulties of the regular army would be solved if but these things were taught in the schools of the country. The great enemy after all is ignorance. If, therefore, our home military system be never required, who shall say that our work has been in vain?"

A WARNING FROM WEST AUSTRALIA.

(To the Editor of the Australasian Medical Gazette.)

Sir,—The following account of the experience of myself and a few other medical men with certain sub-

sidised hospitals in West Australia will act as a warning to those who contemplate accepting appointments that are frequently advertised in the daily papers of Sydney and Melbourne. Some of these advertisements state to apply to the secretary of the hospital, others to a medical agent.

About 12 months ago I noticed this advertisement in the *Sydney Morning Herald* :—

DISTRICT HOSPITAL,

W.A.

Applications will be received from duly qualified Medical Practitioners, up to 8 p.m. on 19th January, 1907, for the position of Resident Medical Officer to the above hospital. Salary, £500 per annum, with free quarters, and right of private practice. Duties commence 1st March, 1907, and include one visit weekly to ——— and ——— distant 7 and 14 miles respectively. No other medical man practising within 50 miles. All reasonable travelling expenses incurred will be refunded on satisfactory completion of 12 months' service. Applications to be accompanied by copies of testimonials, and addressed to the ———

December 12, 1906.

I sent an application. A few days later a Sydney medical agent asked me to call on him. I did so, and he offered me the position at the ——— District Hospital, telling me there was great scope for private practice and opportunities for surgery; further, that the practice was worth, all told, fully £1200 per annum. He wanted £25 for the appointment, i.e., 5 per cent. on the hospital salary.

I asked him how came it that the hospital committee had advertised without mentioning his name. He informed me that they had consulted him and told him they would accept the man recommended by him. Doubting his statement, I told him I had already applied for the position in answer to the advertisement. He said, "I am afraid you will not get it, doctor, unless I recommend you; the man I recommend will get the position." But I said, "Supposing you recommend me, will you guarantee to secure the appointment?" "Yes, I will," he replied. "Then," I said, "evidently you have no one to recommend, or else you will recommend a couple and chance which one gets the appointment." I told him I would stand on my own application, and left him.

The applications (eight of them) having been considered, I received a wire from the secretary of the hospital to say that I had been appointed. I wrote for further particulars, and the replies being apparently satisfactory I left Sydney to take up the position at ——— District Hospital.

A short description of the position of the hospital and the district will not be out of place. The chief town of the district is ———, 35 miles from the Goldfields railway line and about ——— miles from Perth. The population was then about 300. The hospital is situated in the bush, seven miles further on at ———, the population of which was about 12, certainly not more. ——— (population 150) is 14 miles further away. There is a small settlement of about 20 at ———, 22 miles from the hospital. So that the total population of the district was not more than 500. It was represented to me as £1200.

On arrival at ——— the secretary of the hospital explained my duties, one being that I must visit any subscriber to the hospital when required at any part of the district, even to ——— (22 miles) for nothing the

first visit, a conveyance only being allowed. Such a rule effectively put a stop to the private practice.

This and other details had been carefully suppressed in the information given to me before leaving Sydney. So that excepting the few people within walking distance of me at ———, the shortest visit would be seven miles to ———, the only compensation being the free conveyance. Further, the statement "no other medical man practising within 50 miles" was a lie, as I found my predecessor (who was not on good terms with the committee) in private practice at ———, where the bulk of the population lived.

I had signed no agreement before leaving Sydney, and finding that I had been deceived I refused to take the appointment. Fortunately, I was able to obtain legal advice, and acting under it I suggested terms to the committee, which were accepted. I reserved the right to leave when I wished and all my travelling expenses were to be paid. About this time I asked the committee if my friend the medical agent had been consulted about the appointment of a medical man, and was informed that he had no authority whatsoever to act for them. Finding my time and money wasted by going to such a place, I decided to leave, and told the committee. I stayed altogether 41 days, the private practice amounting to £2 2s. The committee then threatened not to pay my salary and travelling expenses unless I found a successor. They refused the services of the ——— doctor under any circumstances, although he was a sound practitioner. I refused to find another doctor, as it was not my business. Later they decided to pay the salary but not the travelling expenses unless I found a successor. I then issued a warning to all medical agents (except the one referred to above) and informed the W.A. Branch of the B.M.A. of the circumstances. The committee made every effort to obtain a doctor, and failing to do so paid my travelling expenses unconditionally.

I then found Dr. ——— B—— and explained all details of the appointment, and he accepted it, being quite satisfied to stay in the position, as it suited his health, there not being much to do.

My predecessor was still in ———, but left about a month after Dr. B——'s arrival. Dr. B—— stayed a few months, and then the committee dismissed him on the excuse that the subscribers wanted a younger man. By the way, Dr. B—— died in Perth a few weeks after leaving the district, after over 50 years of active practice. So much for my own and Dr. B——'s experience of this hospital.

To find a successor to Dr. B——, the committee consulted the Sydney medical agent referred to in the beginning of this paper. They were careful not to advertise ———. However, the agent found a newcomer to Australia, Dr. ——— I——, whose permission I have to relate his experience, and induced him to go to ——— Hospital at £400 a year and private practice, which was represented at another £700 or £800 a year. He was also informed that he would have great opportunities for doing surgery. Several facts about the practice and the circumstances were carefully suppressed. He was told all details on arrival in the district. He paid the agent £20, being 5 per cent. commission on the salary of £400, and signed an agreement to stay three months, travelling expenses to be paid by the committee on condition he stayed 12 months. On arrival at the hospital he found that he had been deceived in many things. He resigned at once, but was obliged to stay the three months according to his agreement. He placed the matter before the medical department

of the W.A. Government, which subsidises this hospital, but received no satisfaction. His three months' experience convinced him that the private practice was a myth and that the cost of living swallowed up most of the salary. The population of the district was decreasing daily, and he left the State out of pocket by his venture.

To find a successor to Dr. I——, the committee instructed a Melbourne medical agent. A Dr. P—— was appointed by this agent, who requested £20 commission, which, fortunately, he refused to pay until after he had taken up the appointment. On arrival in Perth he was advised by those knowing the circumstances not to go any further, as it meant spending more money and time going to ——— district to find out by experience that he had been deceived by the careful suppression of facts connected with the practice. Dr. P—— was put to the expense and loss of time of coming from Melbourne to go to a place that will most certainly soon be a memory. So much for medical agents and ——— district.

I have the permission of Dr. M—— to relate his experience of the Sydney agent and the B—— Hospital. This agent induced him to accept the position of R.M.O. at B——, at a salary of £300 per year and private practice said to be worth another £600. He was told the population was at least 1000. I have visited the district and am quite sure B—— does not contain 300 people, and has no chance of increasing. He paid £15 commission for obtaining the appointment, and is at B—— now, and knows full well he has no chance of private practice, as all subscribers to the hospital are entitled to treatment at their homes. He was induced to take this appointment by misrepresentation and suppression.

All the above information has been placed before the W.A. Branch of the B.M.A., and the Branch intends taking steps to prevent unscrupulous agents deceiving medical men. Dr. I—— paid £20 for a three months' salary, believing he was going to a good practice. Dr. M—— paid £15 on his year's salary, although he knows he could not possibly stay there a whole year. Dr. P—— quite rightly refused to pay commission until he had received his salary. I had refused to pay commission to the agent for promising me something he had no right to give. From the above facts, one can see how necessary it is to be careful in the choice of a medical agent.

As to the rules of these subsidised hospitals much could be said. The salary advertised is usually large for a hospital appointment; but for it the doctor is obliged to treat all subscribers, both at the hospital and in many districts at their homes. Some hospitals only give advice and medicine if the subscriber calls at the hospital; but if the doctor is required to visit the subscriber at his home he may charge a fee, such fee usually being fixed by the hospital committee not to exceed a certain sum. In one district the doctor is obliged to go 60 miles to see a subscriber for five guineas and pay his own expenses. Anyone may subscribe and get treatment, no matter what his income may be. Subscribers are entitled to all operations and anaesthetics—in fact to everything except midwifery and dentistry.

Usually the doctor is engaged for 12 months only; at the end of that time the committee may make some new rule that does not suit the doctor (it is bound to be something to reduce his income); if he refuses to sign the new agreement he is dismissed, and someone is found foolish enough to take his place. His successor, of course, will be obtained either through a medical agent or by an advertisement that will carefully tell

only half the truth. All the abuses of these hospital positions have been pointed out by Mr. L. Bruck in his pamphlet on "Hospital Abuse."

As to the remedy, something is being done by the W.A. Branch of the B.M.A., under whose notice I recently brought these matters. All country practitioners should join the B.M.A. and be united in their efforts to fight the tactics of the hospital committees. I would suggest to those medical men who purpose applying for appointments to the subsidised hospitals of W.A. :—1 Do not accept any appointment on the word of a medical agent. 2. Do not be gulled by the advertisement of the hospital committee. 3. Write to the W. A. Branch of the B.M.A., who will obtain a copy of the agreement and pass judgment on it. 4. Write to the present occupant of the position for information that may be useful before accepting. 5. Do not rely on the statements of secretaries of hospitals, as they tell the truth, but only half of it as a rule, about their hospital and the district. 6. Remember that the cost of living in the outlying parts of W.A. is very high, but the doctor's fees are not proportionately high.—I am, etc., ———, M.B.

(W.A.), Feb. 24th, 1908.

THE AUSTRALIAN UNIVERSITIES.

Sydney.—At a meeting of the Senate of the University of Sydney on March 2nd the Chancellor (Sir Normand MacLaurin, M.D.), in the chair, the following degrees were conferred *in absentia* :—Bachelor of Arts : John Nicholas Curry, Alick Walter Hicks and Alexander McKean. The resignation of Mr. F. P. Sandes, M.D., of the office of surgical tutor was accepted, and, on the recommendation of the Dean of the Faculty of Medicine, Mr. R. B. Wade, M.D., was appointed his successor. Mr. R. Scot Skirving, M.B., C.M., was appointed Lecturer in Clinical Medicine for a term of seven years. The following were appointed examiners in connection with the annual prize competitions :—Wentworth prize medal, Professors Butler, Wood and MacCallum; University prize, Professors Butler, Wood and MacCallum; Nicholson medal, Professor Butler and Dr. Todd; Nicholson prize, Professor Pitt Cobbett, Acting Professor Mackie and Professor Wood. Mr. E. Le G. Brereton was appointed senior demonstrator in the department of chemistry for a period of one year.

Melbourne.—Frequent representations have been made to the State Government in recent months by the Melbourne University authorities regarding the necessity of improvements being effected at the institution. The list of the University's requirements supplied to the Premier last December involved a total expenditure of £21,800, and the Cabinet decided that if the University authorities raised £10,000 the State would make up the balance. Representations on other lines have since been made to the Premier, and after the meeting of the State Cabinet on March 2nd, Mr. Bent announced that the Government was willing to vote £1000 towards the school of anatomy if the University authorities collected £1000 within two months. As these additions are urgently needed, the University authorities are appealing for subscriptions towards the £10,000 required to secure the Government contribution.

Charitable Donations and Bequests.—

Under the will of the late Robert Bushe, of Sale (Vic.), solicitor, who died on November 6th last, the Children's Hospital, Melbourne, and the Melbourne Hospital for Incurables each receive a legacy of £500.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of February, 1908:—Registered deaths in the metropolitan municipalities (Sydney and suburbs) during February numbered 441. This figure excludes deaths of persons not resident in the metropolis but who died in metropolitan hospitals, and it includes deaths of residents of the metropolis who died in the various hospitals for the insane and other public institutions outside the metropolis, with the exception only of those who died in the benevolent asylums. The number of deaths given is slightly above the average mortality in February during the past five years, and is equal to an annual death-rate of 9·31 per 1000 of the estimated mean population for the year. When corrected by the inclusion of the metropolitan proportion of the deaths in benevolent asylums throughout New South Wales the death-rate becomes 9·76 per 1000. Diarrhoeal diseases were responsible for 74 deaths, or 3 more than the average number for the month of February during the past five years. Infectious diseases other than diarrhoea caused 20 deaths, 9 of which were due to typhoid fever, 2 to whooping-cough, 2 to diphtheria, and 1 to each of the following causes: measles, scarlet fever, cerebro-spinal fever and erysipelas. Respiratory diseases caused 23 deaths. Phthisis, with 28 deaths, was about equal to the average. Cancer, with 30 deaths, Bright's disease with 23, and diseases of the heart and blood-vessels with 70, were all more fatal than usual in February. Deaths of children under 1 year of age numbered 119. This is equal to an infantile death-rate of 96 per 1000 births, which compares favourably with 113, the previous average rate for February. The chief causes of infantile mortality were: Diarrhoeal diseases 56 deaths, prematurity 25, developmental diseases 17. 270 attacks of notifiable infectious diseases were notified; 44 of these were due to scarlet fever, 80 to diphtheria, and 146 to typhoid fever. The last-mentioned disease was even more prevalent than in January, and caused more attacks than in any February since 1900. The close of the month, however, witnessed a marked falling-off in the number of new cases. Within the city of Sydney 16 cases of pulmonary consumption were notified under the City Council's by-laws. Eight dwellings were disinfected after the death or removal of consumptive persons.

Infectious Diseases.—The returns of infectious diseases issued by the Board of Health for the fortnight ended February 10th showed that typhoid was very prevalent in the metropolitan and country districts. For the whole State 227 cases, of which 20 terminated fatally, were reported. The metropolitan combined districts contributed 103 cases and 9 deaths, 10 cases coming from the city proper, 8 from Auburn, 10 from Glebe, and 8 from Granville. Thirteen cases and 1 death belonging to the Hunter Valley districts, and 111 cases and 10 deaths to the remainder of the State—Broken Hill 15 cases, Cobar 7, and Moree 11. The whole State returned 96 cases of scarlet fever, with 4 deaths, 37 cases and 2 deaths belonging to the metropolis. Maitland and Marrickville each reported 10 cases. There were during the fortnight 36 cases of diphtheria (1 death) in the metropolis, 3 cases in the Hunter River district, and 19 cases (1 death) in the remainder of the State. During the fortnight ended February 24th 220 cases of typhoid fever were reported. Seventy-eight of them belonged to the metropolitan district—Sydney 18, Alexandria and Redfern 9 each; 14 to the Hunter River districts—East Maitland 7; and 128 to the remainder of the State—Broken Hill 21. There were 7 deaths in the city and 7 in the country from the disease. Of a total of 54 cases of scarlet fever reported, the metropolis supplied 14, the Hunter district 17 (1 death), and the remainder of the State 23. Forty-eight cases of diphtheria were reported in the metropolis, 1 in the Hunter district, and 38 in the remainder of the State.

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, February, 1908:—

Colour	14° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter ..	Very slight.
Total solids	9·2000
Chlorine	3·3000
Free ammonia	·0000
Albuminoid ammonia ..	·0128
Nitrogen as nitrites ..	·0000
Nitrogen as nitrates ..	·0091
Oxygen absorbed in 14 hours ..	·0647
Permanent hardness ..	1·4
Total	3·4

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during February, 1908:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 57° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Absorbed in		Albuminoid Ammonia.	Oxygen absorbed in Four hours.	
							Nitrites.	Nitrates.	Three Minutes.	Four Hours.			
Chatewood ..	.. Faint	Nil	·72	10·0	·467	·080	·021	1·708	—	·425	83·1	74·7	No decomposition
Folly Point..	.. Slight	Nil	1·52	10·4	1·147	·115	·011	·451	—	·641	88·1	83·7	„ „
Balmoral ..	.. Slight	Faint	2·22	12·4	1·545	·167	·041	·994	—	·910	89·2	81·2	„ „

Registration of Restaurants.—At the meeting of the Health Committee of the City Council last month it was resolved to recommend the Council that full provision be made in an Amending Corporation Act for (a) the licensing and registration of all eating-houses, restaurants, etc., (b) for full and adequate powers in regard to sanitation, ventilation and conditions of utensils, and all matters pertinent to the preparation and handling of food; (c) for regulation as to the requisite standard of health and cleanliness in regard to all persons associated with the handling of food.

Bubonic Plague.—After the lapse of two years since the last case of the previous outbreak of bubonic plague was reported in Kempsey, another case was reported in that town. The patient died suddenly, and an examination of the specimens of blood, etc., taken from the body confirmed the diagnosis of plague. The most strenuous efforts to find rats in the town resulted in the capture of only 15, none of which were plague-infected, and there is no record of any mortality among the rats. The history of this case has not been thoroughly traced yet; but Dr. Ashburton Thompson, President of the Board of Health, believes that the case was one of special infection, probably from Sydney. No case of plague in man was reported in Sydney from January 8th until February 27th, when a lad of 15 years of age, who lived in Ultimo, and was employed at an establishment in Druitt-street, was found to be suffering from this disease and was removed to the Coast Hospital. The bottom of Druitt-street was the source of infection of two cases in the outbreak at the beginning of last year. The spot was found to be badly infested with rats, and generally in a very bad state, and the area was cleaned up. During the last outbreak a large number of poisoned baits were laid for several nights, and though few rats were captured, a very large proportion of the baits was taken, showing that the place was badly infested. Increased efforts are being made in the direction of rat extermination, and large numbers of both rats and mice have been destroyed, but so far only a few plague-infected rats have been discovered.

Victoria.

Typhoid Epidemic.—Typhoid fever is prevalent in Victoria, principally in the country districts. During the fortnight ended February 22nd the total number of cases was 235, with 9 deaths, as against 177 cases with 7 deaths, the average for three years past.

South Australia.

Unwholesome Icecreams.—Last month 12 samples of icecreams were taken by the Health Department in Adelaide, and one-third were reported by Dr. Angus Johnson to be unfit for human consumption. Following upon this report, Dr. T. Borthwick, the Medical Officer of Health for Adelaide, laid the following comments and suggestions before a meeting of the Health Committee:—*The Vendors.*—There are 17 persons licensed to vend icecream in the streets. All of these reside in the city except two, who live in the suburbs. The houses they occupy are kept in a reasonably clean condition, but in some cases the occupants are careless about their surroundings. In most instances there is no special provision for the manufacture or storage of icecream, or for housing the handcart. Existing by-laws give power for inspection of vendors' carts only. A license was recently refused in the case of an applicant who was deemed unsuitable. *Compo-*

sition.—This varies to some extent, but the icecream vended in the streets as a general rule contains milk, eggs, cornflour, sugar, yokatin (for colour), and vanilla (for flavour). No special stiffening material appears to be used, except gelatine, and that very exceptionally. No cream is used. *Manufacture.*—The milk used is obtained from dairymen licensed to deliver milk in the city. The afternoon delivery's milk is used, and as soon as the milk is obtained the other ingredients are added and the mixture boiled. This is done generally in the kitchen, and then the mixture is removed to the verandah, where it is left during the night to undergo cooling. The vessel containing the mixture is covered with a piece of muslin or similar cloth. In the morning the mixture is placed in the freezer, ice being packed around the vessel to produce and maintain a low temperature. When being vended in the streets the icecream is protected by a cover placed over the freezer, and the wafer cups are, as a rule, kept in a special receptacle or in a biscuit tin. *Contamination.*—There is no evidence that milk other than fresh is used, and any bacterial contamination reaching the mixture before boiling would to all intents and purposes be destroyed by the process. The opportunities of contamination occurring afterwards are—(a) the exposure of the mixture during the night to dust which the covering cloths are unable to keep out; (b) the exposure of the carts and utensils to dust in back yards; and (c) the exposure of the icecream and cups to the dust of the streets during transit and sale. Dust is abundant in dry weather, and contaminating bacteria multiply rapidly in hot weather; and these conditions were operative at the time Dr. Angus Johnson made his bacteriological analysis, and no doubt explain the results he obtained. Multiplication of the bacteria occurs only in the fluid mixture before freezing, and poisons might be produced under given circumstances. After the mixture is frozen multiplication no longer takes place; but the bacteria are not killed, and they might regain their activity in the human body after the icecream is eaten. *Suggestions.*—It is practically impossible to control the manufacture of icecream by these vendors under existing conditions. A solution of many of the difficulties would be the manufacture of the icecream by some wholesale firm, who would supply it to the vendors every morning as required. The only regulation required then would be to ensure properly constructed carts and utensils for its sale in the streets. As things are at present regulations should be made to provide a place apart from the dwelling-house for the manufacture and storage of icecream and a suitable shed for housing the cart. The surrounding yard should be paved and kept scrupulously clean. The greatest danger—that arising from the exposure of the mixture at night—could be avoided by manufacturing the icecream in the morning for use the same day. This would imply using the milk of the early delivery and necessitate immediate freezing of the mixture, the only objection being the extra expense involved in the employment of additional ice for cooling purposes. It may be added that at numerous small shops icecream is made under equally unsatisfactory conditions, and sold over the counter. The Committee directed that a report be furnished as to the power to make regulations for the purposes mentioned in the report of the officer of health.

West Australia.

Tuberculosis in Dairy Cattle.—Dr. Lovegrove, the President of the Central Board of Health, in Perth, states that a systematic examination of dairy cattle had been started, and would be continued until

all the dairy herds had been dealt with. Cattle found to be seriously affected with tuberculosis would be instantly destroyed, and by this means, seeing that the dairying industry was in its infancy, the disease should be kept within reasonable limits. Every cow was to be tested by the tuberculin test, and all the other latest methods for detecting disease would be exercised. The staff of inspectors has been slightly increased in order to push on the work. A complete report on the dairy herds would be obtained as a result of the examination which had been started. So far as the work had proceeded, the percentage of cattle found to be seriously affected with tuberculosis was not very large.

Tasmania.

Vital Statistics.—The births registered in the districts of Hobart and Launceston during the year 1907 numbered 1681—917 males and 764 females. As compared with the births for the previous year, there was a decrease of 132; and as compared with the average for the last quinquennial period, a decrease of 34. In Hobart the proportion of the births to every 1000 of the population was 28.17; in Launceston, 32.46. During 1907 the deaths registered in the same districts totalled 930—511 males and 419 females. This number was less by 40 than the total for the previous year, and was equivalent to 16.57 per 1000 in Hobart and 16.37 per 1000 in Launceston. The presence of the New Town Charitable Institution in Hobart has a palpable effect on the figures for this district. Of the deaths registered in Hobart, 95 were due to non-preventable causes—in other words, old age; whilst of the 348 attributable to preventable causes, 30 were due to cancer, 30 to phthisis, 17 to other forms of tuberculosis, 70 to heart disease, 24 to pneumonia, and 21 to enteritis. Two hundred and seventy-one deaths were registered at Launceston, 39 due to senility, 21 to cancer, 10 to phthisis, 19 to other forms of tuberculosis, 10 to diabetes, 40 to heart disease, 16 to enteritis.

Queensland.

Dr. B. B. Ham, Commissioner of Public Health, reports for the four weeks ended March 7th:—**Brisbane.**—During the period 1903 rats and 193 mice have been destroyed, 1519 rats and 189 mice have been examined, and 19 rats were found to be infected. Infected rats were found:—At 117 Wharf-street, Spring Hill; at the Royal Hotel, Queen-street; at Burns, Philp & Co., Mary-street. Case 7.—A case of bubonic plague occurred at Brisbane on March 3rd. S.C., a young man, aged 17 years, employed as a cellarman at Burns, Philp & Co., Mary-street, city. The patient was removed to the plague hospital on March 3rd. On February 24th two healthy guinea-pigs, free of fleas, were allowed to run free in the upper storey of the warehouse (where infected rats had been found) for a period of 34 hours. These guinea-pigs were removed in flea-proof glass jars to the Bacteriological Institute on the afternoon of the 25th February. One of these guinea-pigs died on March 1st (5 days). The post-mortem appearances, as well as the cultural and microscopic preparations, showed this guinea-pig to have died of plague. No rat-fleas were found on this guinea-pig. The second guinea-pig died of plague on March 2nd. On this guinea-pig one rat-flea (*P. cheopis*) was found. This rat-flea was transferred to a healthy laboratory guinea-pig on March 2nd, but up to the present time (March 7th) this animal has shown no signs of plague. On March 2nd four further healthy

guinea-pigs (three young and one adult) were allowed to run free as before in certain portions of the warehouse for 48 hours. Two of these guinea-pigs (both young) were placed in the upper store and two (one young, one adult) in the bulk store. One of the guinea-pigs taken from the upper store died of plague on March 6th (four days). From this guinea-pig 64 rat-fleas alive (all *P. cheopis*) were taken. Of the remaining guinea-pigs, one (young) is showing signs of illness, while the other two are apparently well at the present time (March 7th). From the sick guinea-pig (young) 31 rat-fleas (all *P. cheopis*) were taken, while 21 rat-fleas (*P. cheopis*) were secured from another (young). The adult guinea-pig has also many fleas, but the number and identification of the species are still proceeding. Active cleansing and disinfecting operations are still being carried out at the warehouse. Crude petroleum (kerosene) is being used for flea destruction.

Medico-Legal and Medico-Ethical.

What is a "Quack"?—According to a report in the *New Zealand Herald* and *Daily Southern Cross*, a case of considerable interest was heard at the Police Court recently by Mr. R. W. Dyer, S.M., when Max Gotch, a "herbal specialist," carrying on business in Wellesley-street East, was charged, on the information of Dr. Purdy (district health officer), who was represented by Mr. Mays, that, on December 31st last, he wilfully and falsely used a description implying that he was recognised by law as a practitioner in medicine; that on January 11th he sold a certain poison (ergot of rye) to one Albert Percival Bennett, without distinctly labelling the bottle containing it "poison," as required by the Sale of Poisons Act 1871; that he did sell the poison without making an entry in a proper book for the purpose, as required by the Act; and, further, that he did sell the preparation without being a person recognised under the Act to sell it. Mr. Sharples appeared for defendant, who pleaded guilty to the last three charges, but denied falsely representing himself as a doctor. Albert Percival Bennett, inspector of the Health Department, gave evidence as to going into defendant's shop and complaining of a nasty feeling in the throat. Gotch said that whatever was wrong he could effect a cure. Witness expressed a doubt. Gotch offered to cure him in five months. The medicine was to cost 1s 6d an ounce for internal use, and 2s 6d an ounce for outside application. Gotch told witness he was suffering from bronchial affection, and that it was a good job it had not gone down to the stomach, or it would have been a bad case. Defendant had told witness on the occasion of his first visit that he was not registered in New Zealand, but he was registered over "on the other side." On another occasion Gotch had said that he had spent five years in the Berlin Sanatorium. Defendant had also stated that he had a practice among 3000 Austrians, from whom he was drawing £800 a year. Defendant's counsel (Mr. Sharples) submitted that the witness Bennett had admitted that defendant had said he was not registered as a fully qualified medical practitioner in New Zealand. Mr. Dyer said that was not the question. He supposed the greater number of doctors in New Zealand qualified outside, but that did not debar them from practising here. Registration in New Zealand only enabled a doctor to sue a patient for fees due, and defendant was charged here with pretending. Further evidence having been tendered, the magistrate said that, even taking the most liberal view of the case, defendant had pre-

tended that he was duly qualified by law. Mr. Mays asked for the full penalty, with costs on the highest scale. The man was "an arrant humbug and a quack of the worst type." Mr. Sharples protested against such strong terms. Mr. Dyer: "Well, what is a quack? He is a man who states that he is a doctor, and practises medicine without any qualification whatever. At the same time, I do not think that you are, under the circumstances, justified in making an attack upon the man. I certainly consider, however, that he comes within the term 'quack.'" Counsel withdrew the charge of failing to comply with the regulations by not putting the label "poison" on the bottle. Mr. Dyer said that on each of the two charges under the Poisons Act defendant would be fined £5 and costs, £5 19s. "On the charge of falsely representing yourself to be what you knew you were not," continued the magistrate, "I am going to inflict the maximum penalty, because, as far as I know, you have not been convicted before; but I am going to impose a fine which I hope will have the effect of stopping you, and men like you, from carrying on this sort of thing." Defendant was fined £30 and costs £3 16s.

New South Wales Medical Practitioners' Emergency Fund.

The following amounts have been collected up to date by Mr. Barr Brown, the agent appointed by the sub-committee chosen by the Council:—

Abbott, G. H., Stanmore	£10 10 0
Barrington, Fourness, Sydney	10 10 0
Craig R. Gordon, Newtown	10 10 0
Cooley, P. G., Redfern	10 10 0
Davies, R. L., Newtown	10 10 0
Doak, F. W., Mosman	10 10 0
Dick, J. Adam, Randwick	10 10 0
Hinder, H. V. C., Sydney	10 10 0
Hood, A. Jarvie, Sydney	10 10 0
Isbister, J. L. T., North Sydney	10 10 0
Jenkins, E. J., Sydney	10 10 0
Lipacomb, T. W., Leichhardt	10 10 0
Martin, T. Morgan, Sydney	10 10 0
Mills, A. E., Strathfield	10 10 0
MacCormick, A., Sydney	10 0 0
McClelland, W. C., Newtown	10 10 0
McMurray, W., Sydney	10 10 0
Nolan, H. Russell, Sydney	10 10 0
Pockley, F. Antill, Sydney	10 10 0
Read, Clarence, Chatswood	10 10 0
Sandes, F. P., Newtown	10 10 0
Smith, G. H. Walton, Paddington	10 10 0
Trindall, R. B., Newtown	10 10 0
Thomas and Hall, Manly	10 10 0
Worrall, Ralph, Sydney	10 10 0
Marks, H. J. W., Sydney	10 10 0
Laker, Donald, Sydney	8 8 0
Browne, Harold, Summer Hill	5 5 0
Crago, W. H., Sydney	5 5 0
Cosh, J. I. C., Ashfield	5 5 0
Frizell, Thomas, Strathfield	5 5 0
Foreman, J., Sydney	5 5 0
Gillies, Sinclair, Sydney	5 5 0
Hodgson, C. R., Dulwich Hill	5 5 0
Hetherington, H. B., Burwood	5 5 0
Laves, C. H. E., Petersham	5 5 0
Palmer, A. A., Sydney	5 5 0
Pockley, E. O., Summer Hill	5 5 0
Shorter, H. L. Ashton, Petersham	5 5 0
Thomas, G. Bowen, Ashfield	5 5 0

Wood, P. M., Ashfield	5 5 0
Reddall, O. H., Randwick	5 5 0
Quaife, F. H., Woollahra	4 4 0
Beith, Robert, Kiama	3 3 0
Brandon, A. J. Spiller, Sydney	3 3 0
Burge, Bruce S., Waverley	2 2 0
Blackburn, C. B., Sydney	2 2 0
Pym, C. R., Sydney	2 2 0
Sawkins, F. J. T., Sydney	2 2 0
Sheldon, H., Granville	2 2 0
Burkitt, W. A. H., Goulburn	2 2 0
Cribb, A. Gordon, Millthorpe	2 2 0
Foley, Jno. E., Cowra	2 2 0
Griffiths, F. Guy, Killara	2 2 0
Harvison, W. S., Cooma	2 2 0
Hall, E. C., Parramatta	2 2 0
Jones, R. T., Ashfield	2 2 0
Jones, P. Sydney, jun., Glebe	2 2 0
Litchfield, W. F., Glebe	2 2 0
Müller, C. A., Sydney	2 2 0
McPherson, Jno., Young	2 2 0
Menzies, Guy D., Drummoyne	2 2 0
Roberts, L. W., Cowra	2 2 0
Smith, S. A., Glebe	2 2 0
Terrey, Caleb, Woollahra	2 2 0
Veech, M., Molong	2 2 0
Welsh, Professor, University	2 2 0
Wade, R. B., Stanmore	2 2 0
Benjafield, V., North Sydney	1 1 0
Callaghan, J., Windsor	1 1 0
Caspersonn, E., Wyalong	1 1 0
Capper, H. S., North Sydney	1 1 0
Clay, W. R., Hornsby	1 1 0
Corlette, C. E., Sydney	1 1 0
Davidson, L. G., Balmain	1 1 0
Fiaschi, Thos., Sydney	1 1 0
Fiaschi, Piero, Sydney	1 1 0
Kirkwood, Jno., Cooma	1 1 0
Lane, Thomas, Neutral Bay	1 1 0
Marshall, H. H., Sydney	1 1 0
Hughes, D. Gwynne, Sydney	1 1 0
Norrie, And., Sydney	1 1 0
Phipps, J. H., Mosman	1 1 0
Roseby, E. R., Marrickville	1 1 0
Stacy, H. S., Sydney	1 1 0
Scot Skirving, R., Sydney	1 1 0
Windeyer, J. C., Sydney	1 1 0
English, J., Yass	1 1 0
McKay, W. J. S., Sydney	1 1 0

Total £440 10 0

G. H. ABBOTT, Chairman.

CLARENCE READ, Hon. Secretary.

12/3/08.

J. ADAM DICK, Hon. Treasurer.

Death Under Chloroform.—At an inquest held upon the body of a young woman, who died whilst under chloroform, in a private hospital in Melbourne, the coroner is reported to have said "the administration of chloroform was becoming a source of some danger. It was the third death this year. Our average of one death in 2500 cases, as against one in 3000 in London, was a bad one. The medical profession might see to it that there was more expert teaching given in universities and that the administration of the drug was left more in the hands of specialists. In that way the present death-rate might be reduced and popular apprehension allayed. It would be a grave thing if people became too afraid to take anaesthetics." A verdict of death by misadventure was returned.

INSANITY IN AUSTRALIA.

Victoria.

(Abstract of the Report of the Inspector-General of the Insane (Dr. W. Ernest Jones) for the year ended December 31st, 1906.)

On the 1st January, 1906, there were on the registers of the department 4,771 insane persons, and on 31st December there were 4,944, a total increase of 173. The actual increase in the State hospitals for the insane is 90, whilst there is an increase of 9 on trial leave and 6 boarded out. In the private licensed houses there were, at the end of 1906, 63 persons, of whom 46 were direct admissions, and 17 were on trial leave from the State hospitals for the Insane.

Admissions.—During the year 773 cases have been admitted; of this number 687 are first admissions, whilst 86 were re admissions. Of the total number of admissions, 129 were known to have had previous attacks, at least 104 were over 60 years of age, and 122 were below the age of 25. Of the total number, 304 were said to be first cases, and admitted within three months of the commencement of the attack. Adding to the number 687 the number of persons, namely, 52, admitted to the licensed houses on the first attack of insanity, it will be seen that the annual admission rate of freshly occurring insanity is one in every 1,675.2 of the population, and the total number of registered insane is one in every 250.4.

Discharges—273 patients have been discharged recovered, whilst 87 also have been discharged as relieved. These figures, taken in conjunction with the fact that only 86 of the 773 admissions are relapsed cases or second admissions, are, on the whole, favorable, and show a better result than last year's figures.

Deaths.—Whilst there has been a steady increase in the average number resident, the death rate has been steadily decreasing for the last three years, until this year it is the lowest recorded, namely, 6.47 per cent. on the average numbers resident. One accidental death occurred, and is referred to in the report on the Idiot Asylum. The death rate from phthisis in the Ararat hospital for the insane appears somewhat high, in spite of the fact that isolation in tents has been undertaken in this institution for tuberculous cases.

Hospital for the Insane, Yarra Bend.—At the end of the year there were 920 patients on the books, as compared with 832 at the end of 1905, but of this number 97 were on trial leave. Whilst the receptions for the year numbered 280, discharges recovered numbered 81, discharges relieved 12, and there were 31 transfers to other asylums, and 67 patients died. The health of the patients has been good. Two deaths from tuberculosis occurred, probably both these patients were already affected on reception. During the year a hospital ward in each division has been erected. Dr. Mullen describes the work of the year as uneventful, the reason being found in the class of patients received, the hopelessness of controlling an institution so largely consisting of cottages, and the stagnation due to the non-appointment of permanent officers. Seclusion has been resorted to in ten cases for a total of seventeen and two-third hours, whilst restraint has been necessary for eighteen patients for a total of 2,810 hours, surgical reasons being the predominant cause for so much restraint.

Hospital for the Insane, Kew.—At the end of the year there were 1,007 patients on the books, but of these, 131 were absent on trial leave, and 9 were boarded out.

During the year 138 males and 152 females were admitted, of whom only 21 males and 22 females had been in the institution previously. One hundred and ten were discharged recovered, 48 relieved, and 8 not improved, making a total of 166. Of the 48 cases relieved, 36 were discharged after trial leave. There were also 62 patients transferred to other institutions, whilst 12 were received from other institutions. During the year there were 46 deaths among male patients, and 30 amongst female patients; 2 males died from general paralysis, and 1 male and 4 females died from phthisis. Dr. Barker comments on the extremely unsatisfactory character of the receptions so far as prospects of recovery are concerned, a large number being advanced in age, and many broken down in health, 11 being general paralytics, 6 epileptics, and 50 showing some congenital defect or hereditary taint. The general health of the inmates has been good, and free from epidemic disorder, except that a few cases of colitis occurred on the female side. Endeavours to increase the number of patients working daily have been more or less successful, and physical drill has been successfully undertaken on the male side. The daily average number of those employed has been 310 men and 297 women, whilst daily walks about the grounds have been carried out to a far greater extent than formerly. Some alterations in the use to which the various wards were put have been carried out successfully, and the reclassification is working satisfactorily. A new exercising ground has been formed, and gives excellent accommodation for the quieter and better class of patients. Dr. Barker comments on the unsuitable character of the laundry, and the desirability of additional accommodation for the nursing staff. He is also desirous of seeing an independent hospital ward erected on both sides of the institution.

Asylum for Idiots, Kew.—At the end of the year 1906, there were on the books 337 patients, of whom 2 were boarded out, and 20 on trial leave. There were 34 admissions during the year, 7 patients were discharged, and 7 died. Of the 34 admitted, 12 were epileptic. The general health of the patients has been fairly satisfactory, taking into consideration that a large proportion of these patients are feeble, unhealthy, and generally tubercular. No epidemics occurred.

Hospital for the Insane, Ararat.—The medical superintendent, Dr. Godfrey, reports that on 31st December, 1906, there were on the register 385 males and 307 females, but, of these, 16 patients were boarded out, and there were 10 on trial leave. During the year there has been a decrease of 47 patients, 64 patients were admitted, 62 were discharged, 7 transferred to other asylums, and 31 male and 18 female patients died. Of the admissions, one in every eight was over 70 years of age, whilst the average age of admissions was 43½ years. As to bodily state—6 were suffering from senile decay, 4 from phthisis, 6 from cardiac ailments, 3 from paralysis, and 2 from uterine tumors. The percentage of recoveries on admissions, excluding transfers, is 75 per cent. The death rate, calculated on the average number resident, was 7.38 per cent., phthisis accounting for 16 deaths, nearly one-third of the total number. Great attention has been directed to the employment of patients. This is especially noticeable on the female side, the numbers in the airing courts having been reduced from 147 to 24. Practically all patients not physically ill are now employed in some useful work. Dr. Godfrey considers that to revert to male attendants in a male hospital ward would be a retrograde step.

Hospital for the Insane, Beechworth.—In his report, the medical superintendent, Dr. Philpott, states that

there were, on the 31st December, 1906, 646 patients under care, whilst 10 were on trial leave, and 5 boarded out. During the year 77 patients were received, but of these 44 were transfers from other asylums. There were 10 recoveries, and 2 other cases were discharged relieved. There were 37 deaths, giving the low percentage of 5.80. This is the more creditable, inasmuch as the mean age of those dying was the mature one of 62 years. In this asylum, chronic male cases have been removed from the care of female nurses, and put under the charge of a male hospital attendant. A small isolated hospital has, however, been arranged for the nursing of suitable male patients by female nurses, and a hospital trained nurse is in charge of it. Dr. Philpott expresses his opinion that capable male hospital attendants are quite as suitable as hospital trained nurses.

Hospital for the Insane, Sunbury.—The medical superintendent reports that the number of patients under care on 31st December, 1906, was 309 males and 403 females, making a total of 712. There were further 4 males and 5 females on trial leave, and 1 male patient was boarded out. During the year the receptions totalled 72, 35 being males and 37 females. The recoveries were 11 males and 13 females, whilst 1 male and 1 female were discharged relieved. The number of deaths was the lowest on record in this institution, namely, 14 males and 15 females; of the male patients, 1 died whilst on trial leave. Amongst the deaths there were 2 cases of general paralysis on the male side; and 6 males and 3 females died from phthisis. This institution promises to be one of the most useful in the department. The new portion is of excellent construction, and is capable of development; the old portion (reformatory school buildings) is capable of being adapted, by the provision of additional day rooms, single rooms, and sanitary spurs, into excellent accommodation for chronic cases.

Hospital for the Insane, Ballarat.—At the end of the year there were 547 patients in residence, whilst 6 were on trial leave, and 1 was boarded out. During the year 30 patients, all females and transfers, were received, the majority of them being epileptic. Two patients were discharged relieved. The deaths numbered 28, 3 of them being male patients, and 1 female patient dying whilst away on trial leave. General paralysis caused the death of 1 male patient, and phthisis of 1 male and 5 females. In this institution it is necessary, in order that the old Industrial School buildings should be thoroughly renovated and improved, that a new administrative building, as well as kitchen and laundry, should be erected. If these very necessary works are carried out, it will be possible to increase the size of the Ballarat asylum to hold as many as 850 patients. At the same time it will be possible to arrange accommodation for the reception of patients from Ballarat city, instead of as at present sending them to Ararat.

Pathological and Clinical Work.—The appointment of a Pathologist necessitated the provision of a laboratory, and this has been organised in a cottage in the Kew Asylum grounds. Here a library is being slowly formed and photographic apparatus has been installed, as well as the first necessary instruments for pathological work. Dr. Mackenzie, the pathologist, soon recognised the advisability of making clinical work in the wards go hand in hand with the finer pathological work of the laboratory, and it is satisfactory to report that his influence in this direction has already been of considerable value. Besides this, new case books and improved post mortem records have been provided and a great deal of work has been done by the medical

officers in improving case-taking methods and records. It will be as well, however, to state most definitely that the provision for pathological and neurological work is still inadequate, and it is most essential that the whole time of a skilled pathologist should be available for the production of research work which will have any definite value. It is not the intention of those gentlemen who succeeded in obtaining from Parliament the existing appointment, that the pathologist should do nothing further than the making of post mortem examinations. These were in the past, provided for by medical gentlemen appointed by the Coroner; but no systematic work was attempted, and no organised records were made. Such work as this can be done in a careful and thorough manner only by a skilled and experienced pathologist, whose whole time can be devoted to the elucidation of some of the more subtle problems of our complex nervous organisation. There exists no such skilled worker in the State of Victoria, able to give the whole of his existence to this very necessary work. The State hospitals provide admirable material, and there is no reason why the State of Victoria should not, by the appointment of a special neuro-pathologist, rival the work that is being done in the laboratories of the London County Council and the Scotch asylums and, coming nearer home, in New South Wales, which is setting an example in this matter which should be copied, if not improved upon.

Cost of Maintenance.—The expenditure of the department was £136,228 1s 1d, an increase of £3,438 17s 11d, as compared with the expenditure for the previous year. The principal increases, as was anticipated, were under the headings of salaries and clothing. The average weekly cost of maintenance per patient was 11s 1d, and the cost, after deducting the amount collected by the master-in-lunacy for maintenance, and the proceeds of sales, fines, &c., was reduced to 9s 10½d, as against 9s 3½d per week for the year 1905. The collections made by the master-in-lunacy were lower by £5,186 than the previous year, and this had a considerable effect on the weekly cost.

Causation and Prevention.—We know from the statistics gathered in many Anglo-Saxon countries that, as a causation, direct heredity alone is a heavy factor, and, if the heritage of other neuroses, such as alcoholism, marked eccentricity, epilepsy, &c., be added, and the truth be told as to the evil branches in every family tree, it will be found that some such predisposing agency is present in nearly 60 per cent. of the admissions to the asylums of these countries. Insanity resulting from alcoholic excess and from specific disease ought slowly to become less and less, but it remains to be seen how our modern methods of life are affecting our lunacy statistics. I view with considerable apprehension the steady rise in the number of female factory employees, and the consequent deterioration of that best of all institutions—home life; the interference with the training of housewives, and, in spite of the most perfect of factory legislation, the manufacture of bodily diseases in the younger employees unfitting them to fulfil their highest obligation to the State, viz., motherhood.

In General.—The year 1906 has not, it must be admitted, been so fruitful of progress as could have been desired. Delays have occurred both in the completion of buildings and in the acceptance of reform proposals, and it will perhaps be as well to state definitely what these causes of delay have been. It was not until December that rules and regulations were finally accepted and proclaimed for the government of the general staff on the lines of the Public Service regula-

tions. These regulations provide a scheme for the education and examination of the nursing staff. A scheme was also adopted for the selection of suitable candidates for the position of attendants and nurses. These are appointed after having passed a simple preliminary examination in educational subjects, on probation for a period of one year, after which time they have to present themselves for examination in elementary anatomy and physiology, with first aid to the injured, and the ordinary routine duties of nurse or attendant. The passing of this examination will confirm their probationary period and entitle them to their first annual increment of pay. The failure to pass will delay this confirmation, or ultimately bring about their rejection on subsequent failure. At the end of two more years, and not before, they will be eligible for the second examination, which will be in general medical nursing and mental nursing, with questions specially relating to their duties and to the duties of those under their orders. On passing this examination attendants and nurses will qualify for further increments in pay, as well as for subsequent promotion. The passing of this examination will entitle the successful candidate to be considered a trained mental nurse, and a certificate to that effect will be given. Special examinations will be devised for the positions of chief nurse and hospital nurse. By these means it is hoped to obtain universal efficiency, promotion by merit, and diligence, rather than by seniority, and, as machinery has been provided in this direction also, the removal of the unfit. This might be a suitable place to mention that it is my desire to arrange with the general hospitals of the State for an interchange of nurses for periods of six months, in order that nurses who have finished or who are finishing their hospital training might obtain experience in mental nursing, and, at the same time, that we might secure for our asylum-trained nurses additional and wider experience in general nursing.

Future Policy.—It has been necessary to provide some accommodation for acute cases in the metropolitan area, in case either of the Yarra Bend or Kew institutions have to be surrendered. The reception house can of course touch only the fringe of these cases, and the feeling in favour of a mental hospital has been growing so strong that it has been decided to erect a mental hospital for the Melbourne area. Owing to the fact that it was decided not to have the Government Inebriate Retreat so near the centre of population, it was possible to convert the institution which was being built for that purpose, and extend it very considerably, so that we shall, in the course of a year or so, have an institution sufficiently near the reception house, the University, and the Medical Schools, as well as in a handy and accessible site, ready for the reception and treatment of acute mental disorders, and containing approximately 120 beds. This will probably be enough to treat practically all those cases of mental disorder of a transient or favourable character who recover within a few months of the onset of their disorder. Well equipped and strongly staffed, it is to be hoped that such an institution as this will be able to do so good a work that the fate of Kew and Yarra Bend will be a comparatively secondary consideration. At the same time we must recollect that the other asylums in the country must also be extended and improved. There seems to be an increasing annual increment of cases of an irrecoverable class left on our hands, and year by year additional provision must be made for these, but, beyond this, re-organisation of almost all the asylums is necessary. The works which were to have been completed in 1906, and which were authorised in

1905, were as follows:—Reception House, 40 beds; Sunbury, two new wards, 84 beds; Ballarat, two new wards 84 beds; Yarra Bend, two temporary wards, 96 beds. During the year 1906 the following works were authorised, and some of them commenced:—The Mental Hospital for 120 beds; a new reception ward at the Bendigo Gold District Hospital; alterations at Beechworth, to provide additional accommodation for both patients and staff; alterations at Ballarat to old Infirmary ward; new mess rooms at Beechworth; new quarters for female staff at Sunbury and Ararat; at Sunbury, new kitchen and stores, with a new steam and hot water apparatus; at Ararat, additional water supply and fire circuit; a new sewerage scheme and improved water supply was also commenced at Ballarat. During the year 1907-8 it is proposed to complete the erection of the Mental Hospital; to make certain additions to the old wards at Sunbury and Ballarat; to provide electric lighting at Sunbury; to provide new laundries at Kew and Beechworth, with a new steam apparatus. Besides this, there will be additional accommodation provided for the staff, and also tents for the treatment of infectious disorders in each of the hospitals. It is proposed to make very considerable improvement in the dietary for the patients by the general use of oatmeal, and the provision of puddings. This can probably be done at a comparatively small cost, and will materially help to relieve the monotony of the existing dietary scale. The appointment of an architect, with the necessary subordinate staff, to take charge of the buildings in this department, will be necessary if new asylums are to be constructed. There is ample work for such an official, and his appointment would probably tend to economy and uniformity of construction.

HOSPITAL INTELLIGENCE.

Sydney Hospital.—At the annual meeting of subscribers to the Sydney Hospital last month the annual report showed that not since the opening of the main building (by the late Sir George Dibbs) in 1894 had the Sydney Hospital passed through such an active and progressive year. The opening and furnishing of the new south wing, the fitting up of the J. H. Want memorial theatre, the dedication of the Robert Brough memorial fountain, the enlargement of the laundry, the installation of greatly increased boiler power with the best smoke prevention appliances, the external painting of the whole of the hospital buildings, when taken in conjunction with the ever-increasing surgical and medical work of the various wards, out-patient, casualty, pathological, and skiagraphic departments, had combined to maintain a high pressure of continuous work throughout the year. The importance of a properly-equipped and well-worked up-to-date pathological department was becoming more clearly recognised each year. Many cases which formerly remained undiagnosed were now readily deciphered, and the diagnosis in such cases was now often absolutely established beyond doubt by carefully-conducted laboratory methods. The advantages of this to the staff could not be over-estimated. During the past year the standard of work done had not only been maintained, but the amount of work done was greater than that of any previous year. The work this year had been greatly facilitated by the provision of new apparatus, including an extra incubator, a new microscope and microtome, and electric centrifuge, hot-air bath, and a complete outfit for opsonic estimations. The removal of the skiagraphic department had given room for expansion, which was much needed, and as soon as necessary

repairs, cleaning and painting were completed, the work of preparation of tissues for microscopic examination would be done in a separate room. This reform would add greatly to the facilities for work in the department, and would allow of the bacteriological room being kept clear for micro-biological work alone, as was originally intended. In order to keep the hospital in line with the most recent advances in therapeutics, it had been considered necessary to set apart a portion of the new wing, to be fitted out with all needful apparatus requisite for the treatment by mechanotherapy (massage, etc.), as well as certain forms of electricity and hydrotherapy not otherwise provided for. It was anticipated that while the utmost attention had been paid to economy, every requirement would be most amply provided for the treatment of the patients.

Carrington Convalescent Hospital.—The eighteenth annual meeting of the subscribers to the Carrington Centennial Hospital Home for Convalescents was held last month. The report showed that during the year 1243 patients were under treatment, and of that number 1057 were restored to health. Of the remainder 97 were much improved in health, 5 were apparently not benefited, and 1 died. The patients treated since the establishment of the hospital number 18,326. The daily average in the wards was 84. The home chiefly filled the purpose of a relief to the city hospitals, and time after time beds were made available in city hospitals for acute cases owing to the convalescent homes being able to receive patients before they were well enough to return to their homes; but the outside patients included chiefly those who needed a rest and change owing to overwork, and it was the especial wish of the founder of the home—the late Mr. W. H. Paling—that this type of patient should be received. During the past year 162 of such patients were received. Of the 1243 patients treated only 61 paid, their contributions amounting to £95 18s, against a total expenditure of £3215. Of the remainder 1024 did not contribute, while 158 were admitted on Government orders. The demands upon the hospital were increasing steadily year by year, but, unfortunately, its distance from Sydney rendered it less prominent to the public than the metropolitan hospitals. The committee trusted, therefore, that every friend of the institution would use his best endeavours to make the necessities of the hospital more generally known, and assist in swelling the number of subscribers. One other question was the children's shelter. A sum of £150 was in the bank towards that object, but further help was asked from those interested in the work. The treasurer's report showed that the financial position was satisfactory. He gratefully acknowledged the following special receipts in aid of the hospital:—Hospital Saturday Fund, £220; the Masonic body of New South Wales, including £25 as an annual subscription from the Grand Lodge, £167 4s 6d; the New South Wales railway and tramway employees' convalescent fund, £12 3s; part proceeds gate moneys, stud sheep sales, £8; collections made on board White Star steamers, per Messrs. Dalgety & Co., £5, which in addition to various gifts in kind had been most acceptable. The year started with a balance in hand of £356 19s 9d; the total contributions were £1088 19s 2d, which with income from other sources gave a total of £4148 5s 4d. That, with the balance from the previous year, gave a grand total of £4404 5s 1d. The total expenditure was £3215 10s 1d, as against £3216 14s 10d in 1906, leaving a balance of £1188 15s, which had been apportioned thus:—Endowment fund, £798 5s 10d

bed endowment fund for accrued interest, £32 14s 6d; shelter fund, £149 19s 5d, which totalled £980 19s 9d, leaving a sum of £207 15s 3d to be carried forward. The average cost of each occupied bed was £34 17s, an increase of 5s 3d compared with the previous year, due to the decrease in the daily average number of patients. The item of £400, incurred annually in the conveyance of patients to and from the hospital, represented nearly £5 for each bed occupied. The following were elected members of the committee:—Sir James Fairfax and Mr. Richard Jones, M.L.C. (nominated by the Governor); Dr. G. E. Rennie and Mr. W. H. Anderson (nominated by representatives of the donor); and Messrs. Richard Binnie and T. F. Knox (nominated by the subscribers).

Royal Hospital for Women, Sydney.—The annual meeting of the Benevolent Society of New South Wales was held at the institution last month. The report dealt with the work of the Royal Hospital for Women, Paddington, the Hospital for Infants and Asylum for Women and Children, Thomas-street, and the Outdoor Relief and Stores Department. During 1907, 1812 women and 1119 children were dealt with at the Royal Hospital for Women, Paddington, and the Hospital for Infants and Asylum for Women and Children. Compared with the previous year, 1906, these figures showed an increase of 404 women and 69 children, the increase in the work being entirely due to the steady development of the Royal Hospital for Women. The society's cash debit balance had been increased by £638 during the year, and now stood at £4323. The subscriptions and donations totalled £4316, an increase of £413 over the previous year. At the present time only £2500 was allowed by the State on the £ for £ basis, so that the society collected, with the addition of amounts claimable under legacies, £1884 more than was provided for on the estimates by a £ for £ subsidy. This year's estimates did not provide for the special gift of £1000 to the society, the Government support thus being reduced by £1000, and the directors were at a loss to understand, in view of the society's financial obligations and necessities, what reason could have induced this reduction in its allowance, seeing further that a definite promise was received from the responsible Minister after careful inquiry to increase the vote. It was regretted that no arrangement had been completed whereby the personal payments by patients to the hospital should be retained. Last year these contributions amounted to £224 7s 6d, every penny of that money being returned to the Government. Legacies totalled £299, and were received from the following estates:—The late W. R. Dunlop, £50; the late Matilda McIntyre, £60 10s; and the late Ebenezer Way, £50. The report of the Royal Hospital for Women showed that the work in all branches had been of the utmost benefit to the public. The medical report showed a steady increase of work and efficiency in both gynaecological and obstetric departments. The number of infants born was 615, but of these 41 were stillborn, and of the 33 deaths 21 were of prematurely born children. The number of adult deaths was 19. The out-patients' department had increased to such an extent as to demand larger premises. During the year treatment and medicine had been dispensed to 685 new cases, an increase of 188 on last year. The total attendance numbered 2041. The number of infants treated last year was 240, including those sent by the State Children's Relief Department, giving a total of 1388 attendances. The hospital had afforded facilities to 20 medical students for experience in obstetric practice. The establishment of an up-to-date pathological department, which it was hoped would be com-

pleted during the current year, would greatly increase the efficiency of the indoor hospital work.

Women's Hospital, Melbourne.—The foundation stone of the new buildings for out-patients and nurses' quarters in connection with the Women's Hospital, Carlton, was laid last month by the Lady Mayoress. The Premier, in welcoming the Lady Mayoress and other visitors, said the present Government had given more to charity than any other Government for many years. In 1906 the Government gave £1500 to the Women's Hospital for the purpose of erecting a new laundry. He believed that the nurses should have comfortable quarters to enable them to discharge their duties properly, and when Government assistance was sought for the purpose of providing new quarters for this hospital, he consented to give £5000, provided a similar sum was collected from the public. He had not thought for a moment that that sum would be subscribed, but he believed that actually £6327 had been raised. The Lady Mayoress was entitled to their thanks for the time she had given and the great energy she had displayed in the collection of such a sum. The hospital also received £2400 for maintenance, equal to £22 7s for each bed occupied. In the year ending June 30th, 1907, the municipal grant was £299, or at the rate of £2 15s 7d per bed. The City Council last year gave only £1200 to charity, and he thought the time had arrived when the Government should call upon such bodies to donate more than they did to hospitals and other charitable institutions. The public contributions to the hospital last year totalled £2008, or £18 14s 6d per bed; in-patients contributed £603, and out-patients £107. The average cost for each bed occupied was £57 12s 4d. He would have great pleasure in handing the Lady Mayoress the amount of the Government endowment, and he added that there was money still left if the institution became in need. A silver trowel and mallet were presented to the Lady Mayoress, who declared the stone well and truly laid. The foundation stone is inscribed: "This foundation stone was laid by the Lady Mayoress, Mrs. Henry Weedon, on the 26th February, 1908. President, Mrs. W. Henderson."

Talbot Colony for Epileptics, Victoria.—At the annual meeting of the subscribers of the Talbot Colony for Epileptics held on March 2nd, the balance sheet showed that the expenditure for the year was £533 15s 3d. The receipts, including £135 11s 2d interest on investments, £39 7s for grazing fees, and £54 17s 8d patients' contributions, amounted to £229 19s 1d. The credit balance from the previous year, £171 4s 8d, was expended, and the year ended with a debit balance of £132 11s 6d. The capital account showed that the receipts from subscriptions had been £11,167 4s 1d, the total subscriptions for 1907 were £347 5s, including £200 from the J. R. McPherson estate for water supply and £100 from the Edward Wilson estate. The expenditure on buildings up to the end of last year was £7312, on water supply £357, furniture £562, drapery £125, farm implements £28, and there remained in hand £2863 10s, of which £500 was invested in New Zealand debentures, £300 was in the Savings Bank, £1500 on fixed deposit, and £563 was on current account. In addition to this, a sum of £1000 had been promised by the State Government towards the cost of furnishing the institution, and had not yet been collected. In the report of the council for the year, read by the hon. secretary (Dr. Shields), it was stated that the buildings were not entirely com-

pleted till the end of August. Two male and two female patients were admitted to the institution on September 12, and altogether during the year 29 were admitted, 10 were discharged as unsuitable, three left of their own accord, and 16, of whom eight were men and eight women, remained in the institution at the end of the year. One-third of the inmates were free, the remainder paying varying amounts from 5s to 15s weekly. The council had decided to make the minimum charge to paying patients 7s 6d a week. The lady superintendent resigned at the end of the year, and her resignation was received with regret by the council. Miss Ida Harvey was appointed to fill the vacancy from January 1. The report and balance-sheet were adopted, on the motion of Dr. Shields, seconded by Dr. Fishbourne. The report of the medical officers showed that up-to-date 40 patients had been admitted and 16 left, there being now 28 in the institution. Of those who went out three were discharged at their own request, one at the request of friends, six were altogether unsuitable, and two refused to do any work. The mental condition of the other four made them unfit for treatment at the colony. Some of the present inmates were hardly fit for this institution, but every effort was being made to keep them. Difficulty was caused, in some cases, through those responsible not altogether fulfilling their contract, and it was suggested that it might be desirable to require a deposit with a patient to meet such a difficulty. Though it was early yet to speak of results, certainly, in several cases, a marked improvement had taken place in the appearance and general condition of patients. Dr. Fishbourne said that at first it was necessary to proceed slowly with the admission of patients. A number had to be refused, because they were not fit for such an institution. Some were not able to work, some not able to attend to themselves, and required institutional care, and for them another institution was needed. At present accommodation was only provided for 25 men and 25 women, and provision was required for children who could not be treated with adults. Two cottages, one for boys and one for girls, should be built.

Messrs. Hewlett's Preparations.—We have received from Messrs. Hewlett & Sons samples of their Lin. Betulæ Co. and Tablet Formaldehyde Co. The oil of sweet birch (*Betula Lenta*) consists principally of Methyl Salicylate, with similar properties to the Salicylates. It is therapeutically equivalent to its weight of Sodium Salicylate, and in Lin. Betulæ Co. the combination of Menthol, Camphor, etc., has proved very beneficial in the treatment of acute and chronic rheumatism, sciatica and lumbago. It is claimed that the external application of Lin. Betulæ Co. causes prompt local analgesic effect, and does not cause the depressing effects and stomacic disturbance of the salicylates. One drachm of the liniment either rubbed in or applied on absorbent cotton-wool covered with impermeable tissue forms a useful application.

The Compound Formaldehyde Tablets contain a minute proportion of formaldehyde in each tablet, together with menthol, pepsin, citric acid and sugar. In solution they liberate a dilute form of formaldehyde, free from its nauseous, irritating properties, but a powerful antiseptic. They have been recommended in the treatment of diphtheria, scarlet fever, and infective sore throat.

PERSONAL ITEMS.

Sir Philip Sydney Jones has returned to Sydney after an extended visit to America and Europe.

We regret to learn that Sir T. Fitzgerald, of Melbourne, has been seriously ill for some time past; however, his condition now shows some signs of improvement.

Dr. H. C. Maudsley, of Collins-street, Melbourne, has obtained four months leave of absence from his duties as Physician to the Melbourne Hospital, and intends leaving on a trip to England on March 24th. Dr. R. H. Strong, the senior out-patients' physician at the Melbourne Hospital, has been appointed temporarily to fill Dr. Maudsley's position.

Drs. H. Maudsley and W. F. Orr were entertained at a dinner at the Savoy, Melbourne, prior to their departure for Europe. The chair was occupied by Professor Allen, and the toasts of the guests, which were proposed by Drs. J. Jamieson and J. P. Ryan, were enthusiastically honoured.

Professor Anderson Stuart has been made an honorary life member of the Massage Association of Australasia in recognition of his services and his founding of the institution.

Dr. Odillo Maher has resigned his appointment as senior ophthalmic surgeon at Sydney Hospital after 22 years' service, and has been appointed to the honorary consulting staff.

Dr. Holden, of Bellerive, Hobart, has left on a trip to England.

Dr. B. J. Newmarch has disposed of his practice in North Sydney to Dr. E. A. R. Bligh. Prior to his departure on March 18th on a visit to Europe, Dr. Newmarch was presented with an illuminated address by the members of the committee and the hon. medical staff of the Royal North Shore Hospital.

Dr. Joel, of Bunbury, Western Australia, was last month tendered a farewell on his departure for an extended trip to the eastern States and England.

Dr. B. Joel has been granted eight months leave of absence by the committee of the Inglewood (Victoria) Hospital to enable him to visit England and the Continent. During Dr. Joel's absence Dr. Weymberg will take over the hospital duties.

Dr. Elkington has been elected to the Council of the Hobart University.

Dr. E. M. Simmers has started practice at Goombringe, 25 miles south-west of Toowoomba (Q.).

Dr. McDonnell, of Toowoomba, has returned from a trip to the old country, in which the hospitals in London, Paris, Vienna, and Berne were visited.

Dr. N. P. Elliott has left Toowoomba (Q.) for a six months' holiday in Victoria.

Drs. D. Horn and A. Horn have been appointed to the Toowoomba (Q.) Friendly Societies' Medical Institute during the absence of Dr. N. P. Elliott.

Dr. Ernest Black has returned to Perth, W.A., having been on a trip round the world.

Dr. W. G. Brown has resigned the position of house surgeon at the Fremantle Hospital, W.A.

Dr. Hedley Terrey has disposed of his practice at Kiama, N.S.W., and has resumed the practice of his profession at Lindfield, Sydney.

Dr. Harding has resigned his position as surgeon to the Friendly Societies at Longreach, Queensland.

Dr. T. O. F. Alsop, of Melbourne, has commenced practice at Chinchilla, Queensland.

Dr. R. H. Treloar, formerly of Newcastle, N.S.W., is now residing at New South Head Road, Double Bay.

Dr. J. W. Kennedy, formerly of Hay, N.S.W., has removed to Ocean-street, Woollahra, Sydney.

Dr. James Reisch has disposed of his practice at Molong, N.S.W., and has removed to Wellington, N.S.W.

Dr. T. C. Parkinson has left the Royal Prince Alfred Hospital, Sydney, and has removed to Callan Park, Sydney.

Dr. Ernest H. Robertson has left Hay, N.S.W., for the Alfred Hospital, Melbourne.

Dr. Joseph Shellshear has left the Sydney Hospital for Teralba, N.S.W.

Dr. W. B. Dight, formerly of Riverstone and Campbelltown, N.S.W., has removed to Scone, N.S.W.

Dr. William Mawson has left Gundagai, N.S.W., for Campbelltown, N.S.W.

Dr. A. H. Moseley's has commenced practice at Gloucester, N.S.W.

Dr. A. P. Ross has removed from Wee Waa, N.S.W., to Boggabri, N.S.W.

Dr. Marshall, of Bega, N.S.W., who served throughout the Transvaal war, has received the commission of captain in the British Army.

Dr. F. A. Bennet, of College-street, who has been on a trip round the world for the past 12 months, has returned to Sydney, and has resumed practice.

Dr. Murray M. Vernon has left Tingha for Ross Hill, Inverell, N.S.W.

The names of Dr. James Pirie, of Liverpool, N.S.W., and Dr. Charles A. Edwards, of Bondi Junction, Sydney, were inadvertently omitted from the list of members of the New South Wales Branch of the British Medical Association published in last issue.

MEDICAL APPOINTMENTS.

WESTERN AUSTRALIA.

Gibson, Dr., to be House Surgeon at the Fremantle Hospital.

VICTORIA.

Wilkinson, Dr., to be Junior Resident Medical Officer to the Women's Hospital, Melbourne.

O'Connor, Dr., to be Medical Officer to the Omeo Hospital, *vice* Dr. Kilpatrick, resigned.

Erson, Edward George Leger, L.R.C.P., to be Officer of Health for the Shire of Phillip Island and Woolamai, *vice* Richard Augustus Aloysius Manly, M.B., resigned.

Yuille, William Douglas, L.R.C.P., to be Public Vaccinator for Metropolitan District.

QUEENSLAND.

Harding, Dr., to be Surgeon to the Friendly Societies at Rockhampton.

Cummins, R. H. La Barte, L.R.C.P.S. (Edin.), L.F.P.S. (Glas.), to be Medical Officer to the Queensland Collieries.

NEW SOUTH WALES.

Millard, R. J., M.B., Ch.M. (Syd.), to be Medical Superintendent of the Coast Hospital, Little Bay.

The following gentlemen have been appointed to the staff of the Balmain District Hospital:—

Drs. Carruthers, Sinclair Finlay, L. G. Davidson, Tudor Jones, Guy Menzies, and Noel Connolly to be members of the honorary medical staff. Dr. S. S. Shirrow to be paid medical officer.

TASMANIA.

Love, Joseph, M.B., of Melbourne, to be Junior House Surgeon at Hobart Hospital.

MISS STODDART, Cert. Member A.M.A.—**BOWRAL CENTRE**.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to **MISS STODDART**, Holmleigh, Bowral.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

NW SOUTH WALES.

- Nicholson, James Campbell, F.R.C.S. (Edin.), 1903.
 Ritchie, Harold John, M.B. (Syd.), 1908.
 Collier, Frederick William Dean, M.B. (Syd.), 1908.
For Additional Registration.
 O'Reilly, Theophilus Linnell, M.Ch. (Syd.), 1906.

VICTORIA.

- Kennedy, John, M.B. (Melb.), 1907.
 Maclean, James Megaw, L.R.C.P., & S. (Edin.), 1901.
 Shone, William Vernon, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1883.

QUEENSLAND.

- Cummins, Richard Howard La Barte, L.R.C.P. (Edin.), 1907;
 L.F.P.S. (Glas.), 1907.
 Horn, Alexander, M.B., B.S. (Aberd.), 1907.
 Miller, Robert Christey, M.B. (Sydney), 1908.
 Elwell, Lawrence Bedford, M.B. (Syd.), 1908.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

- BURT.—February 18th, at her residence, "Kurnell," London-street, Dunedin, N.Z., the wife of Dr. D. J. S. Burt—a son.
 KELLY.—February 2nd, at Croydon, North Queensland, the wife of Dr. W. R. Kelly—a son.

MARRIAGES.

- LEON-EARLE.—January 29th, at St. Stephen's Church, Richmond, Victoria, John Howard Leon, M.B., B.S., son of Samuel Leon, Esq., barrister-at-law, to Irene Kate Hamill, eldest daughter of Alexander Earle, Esq., "Elrae," Lennox-street, Richmond.
 SPARKE—BARTLEY.—February 26th, at St. Stephen's Church, Phillip-street, Sydney, by the Rev. Mr. Ferguson, Dr. E. D. Sparke, youngest son of the late W. E. Sparke, Double Bay, to Olive Ruby, youngest daughter of the late N. Bartley, Brisbane, and niece of Sir Edmund Barton, K.C.
 WHERRETT—POLSON.—January 11th, at the Summerhill Congregational Church, Ernest Albert Wherrett, M.B., Ch.M., youngest son of the late Mr. Charles Wherrett, of Hobart, Tasmania, to May, eldest daughter of Mr. Charles Polson, of Eglamour, Sloan-street, Summerhill, Sydney. At home, March 16th, 17th, 18th, Loscombe, Marrickville-rd., Dulwich Hill, near Wardell-road.

DEATHS.

- LEAHY.—January 27th, at Napier, N.Z., Margaret Eileen, beloved wife of John P. D. Leahy, M.B., Ch.M., and her premature infant son.
 O'BRIEN.—January 18th, at Montreux, Switzerland, Dr. P. K. O'Brien, M.R.C.S., L.R.C.P., formerly of Broken Hill.

BOOKS RECEIVED.

- A Short Practice of Gynecology. By Henry Jellett, M.D., B.Ch., B.A.O. (Dub.), F.R.C.P.I. Third edition, revised and enlarged; number of pages, xi + 518, with 310 illustrations. Price, 12s 6d net. London: J. & A. Churchill, 7 Gt. Marlborough-street. 1908.
 Proceedings of the Royal Society of Medicine. Edited by John Nachbur, M.D., under the direction of the Editorial Committee. London: Longmans, Green & Co., 39 Paternoster Row. Price, 7s 6d.
 Third Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, February 1, 1905, to February 1, 1906. Edited by Joseph Walsh, M.D. Published by the Henry Phipps Institute, 238 Pine-street, Philadelphia.
 Progressive Medicine. Edited by Hobart Amory Hare, M.D., assisted by H. R. M. Landis, M.D. Vol. iii., September, 1907. Octavo, 290 pages, with 15 illustrations. Per annum in four cloth-bound volumes, 9 dols. Philadelphia and New York: Lea Bros. & Co. Sydney: L. Bruck.
 Obstetrics: A Text-book for the Use of Students and Practitioners. By J. Whitridge Williams, Professor of Obstetrics, Johns Hopkins University. Second enlarged edition, profusely illustrated. Price, 25s. New York and London: D. Appleton & Co. Sydney: Angus & Robertson.
 The Care and Feeding of Children: A Catechism for the Use of Mothers and Children's Nurses. By L. Emmett Holt, M.D., Professor of Diseases of Children, the College of Physicians and Surgeons, Columbia University. Fourth edition, revised and enlarged. Price, 2s 6d. New York and London: D. Appleton & Co. Sydney: Angus & Robertson.
 Medical Laboratory Methods and Tests. By Herbert French, M.D., F.R.C.P. (Lond.). Second edition: crown octavo. Price 5s net. London: Baillière, Tindall & Cox, Sydney: L. Bruck.

The following three volumes have been received from Messrs. W. B. Saunders & Co., Philadelphia and London, per Mr. James Little, of Melbourne:—

1. A Manual of the Practice of Medicine, prepared especially for Students. By A.A. Stevens, M.D.; Professor of Therapeutics. Eighth edition, 12mo, of 558 pages. Price, 12s 6d.
 2. The Pancreas: Its Surgery and Pathology. By A. W. Mayo-Robson, D.Sc. (Leeds), F.R.C.S. (Eng.), and P.I. (Cambridge), M.B. (Lond.), D.P.H. (Camb.). Octavo volume of 548 pages, fully illustrated. Price, 21s.
 3. Treatise on Diseases of the Skin. By H. W. Stelwagon, M.D., Professor of Dermatology. Fifth edition, revised; octavo volume of 1150 pages, with 267 text illustrations and 34 full page coloured and half-tone plates. Price, 25s.
- The Sanitary Record Year Book and Diary. London: The Sanitary Publishing Co., Ltd., 5 Fetter Lane. Price, 2s 6d net.
- Essentials of Physiology for Veterinary Students. By D. Noel Paton, M.D., B.Sc., F.R.C.P. (Edin.). Second edition. Edinburgh and London: Wm. Green & Sons, 1908. Price, 12s net.
- The Harvard University Catalogue, 1907-08.
- The Pyonex: Its Theory and Practice. By W. B. Rule, M.R.C.S., L.R.C.P. London: Messrs. John Bore, Sons and Danielsson, Ltd. Price, 12s 6d net.
- An Essay upon Disease, its Causes and Prevention. By G. E. Richmond, M.D., (Lond.). London: H. K. Lewis. Price, 2s net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. Fourness Barrington, Sydney; Mr. L. Bruck, Sydney; Dr. A. B. Brockway, Brisbane; Dr. D. Maclean, Carisbrook, Victoria; Messrs. Baillière, Tindall & Cox, London; The Librarian, Glasgow University, Scotland; The Registrar, Royal Academy of Medicine in Ireland, Dublin; Dr. B. B. Ham, Brisbane; Inspector-General of the Insane, Victoria; Dr. Charles MacLaurin, Sydney; Dr. Worrall, Sydney; Messrs. Potter and Birks, Sydney; Dr. R. H. Gibbs, Colac, Victoria; Messrs. Mack & Co., New York; The Denver Chemical Manufacturing Co., Denver, U.S.A.; Dr. G. L. Mullins, Sydney; The Hon. Treasurer, Women's Hospital, Sydney; Dr. F. G. Griffiths, Sydney; Dr. A. S. Monzingo, South Tacoma, U.S.A.; Messrs. Burroughs, Wellcome & Co., Sydney; Dr. A. Jeffries Turner, Brisbane; Dr. F. J. T. Sawkins, Sydney; Messrs. Hannam & Co., Sydney; Dr. James J. McDonnell, Toowoomba, Q.; Dr. W. C. Robinson, Sydney; Dr. Walter Spencer, Sydney; Mr. P. A. Kob, Brisbane; Dr. T. L. Bancroft, Stannary Hills, via Cairns, Q.; Dr. Hy. Laurie, Melbourne; Dr. A. S. Vallack, Bowral, N.S.W.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 319.

SYDNEY, APRIL 20TH, 1908.

VOL. XXVII., No. 4.

THE DISABILITIES OF THE PROFESSION.

Presidential Address delivered before the Annual Meeting of the New South Wales Branch of the British Medical Association.

By B. J. Newmarch, M.R.C.S., L.R.C.P.,
Retiring President.

BEFORE I formally declare my term of office closed, and before my successor takes the chair for the ensuing year, I have to follow the time-honoured custom of delivering an address. I am quite aware that anything I can dare to say carries little weight; and no one is more cognisant than I am—particularly at the present moment—that these presidential addresses are supererogatory. I understand that many of the medical schools are doing away with the introductory lecture, at one time deemed so essential to the opening of the schools in October, and I honestly think we could do away with the presidential address. Too often it is the one meeting in the year which is poorly attended, and too often it is the occasion for airing all our grievances. In years to come I feel sure you will be more businesslike—the President will present the report, perhaps make a few comments on the work done, and retire gracefully.

When I look back on my year of office, I am first struck with the fact that I have done nothing personally; but that my colleagues, especially Dr. Todd, Dr. Crago, and Dr. Rennie, are responsible for the well-being of this Branch, which holds the honour of being one of the strongest, and, I venture to say, the most alive Branch in the British Medical Association.

The indefatigable and thorough work of our Honorary Secretary is deserving of more than ordinary thanks. I remember the time when the Honorary Secretary's work was practically a sinecure, and but a stepping-stone to the President's chair; that is all altered now, and no one who has served on the Council would dare to accept the office unless prepared to give a very large amount of time, and expend energy beyond the ordinary. I doubt if we do right in expecting it of any man, and I hope the day will soon come when the office is not, such as it is, an honorary one.

In Dr. Crago we rejoice in having the services of a master hand in the management of the *Gazette*. To Dr. Rennie must honour be given for bringing the *Gazette* to its high standard in medical journalism. Whilst I am referring to these two offices, I wish to candidly state that, to preserve the true business state of affairs, these gentlemen should be *ex officio* members of the Council. I have no hesitation in saying that paid officials should not be elected members of the Council; it must be a fact that it curtails representation if the present method exists, and if by chance they were not elected it would introduce complications.

What shall I say of my other colleagues? Only this, and when said, it is perhaps the highest compliment: they have been loyal and fearless in their work. I delight in plain speaking, and that pleasure has been satisfied to the fullest extreme during the past year. Believe me, there is very little left unsaid when discussion takes place in Council; what is more, I can confidently state that all have worked only for one end, viz., "the good of the profession, and the well-being of the Branch." They have indeed been a hard-working team, and endowed with extraordinary vitality; for, let me tell you that it is no little test of endurance to sit hour after hour in that stuffy, ill-lighted, miserable room belonging to the Branch, and situate at 121 Bathurst-street, Sydney, particularly during the past hot summer. This is, however, not only a question of comfort and convenience, to enable the Council to transact the business of the Branch to better advantage; there is the important question of having rooms to house and preserve the valuable library which in its present condition may be considered worthless to the members.

Again, as in many past years, the thanks of the Branch should be recorded for the services of our Assistant Secretary, Mr. A. W. Green. It is not until one fills the more important positions on the Council that a proper appreciation of that gentleman's services is arrived at. One time I thought that this office should be filled by one of the junior members of the profession. I thought that even the small salary which was given would

help the young and perhaps struggling practitioner. I still think so, but I recognise that the time can only come when Mr. Green resigns, and that resignation would be a serious blow to the Branch.

Whilst on the subject of the *personnel* of the Council, I confess that I would like to see some rule introduced whereby no member could serve on the Council for over five years in succession. There is little doubt but that the previously elected members have an enormous advantage in subsequent elections, and the same names are chosen year after year. I cannot help thinking that an enforced change would bring forth at least a keener interest.

True to my prelude, I will endeavour not to enlarge too much on the grievances of the profession. There can be no congregation or association of human units, no matter what the condition of life or circumstance, that has not a grievance. It is equally certain that no condition of life or circumstance remains the same as years roll on. Great changes have occurred, more are developing, and our profession must inevitably be affected. Looking back, as I can, on over thirty years I can note very many and serious changes, not all of them for the worse, I am thankful to say. The majority of these changes are absolutely due to outside circumstance; some we are powerless to prevent, others we must resent.

It is a hard fact (however true) that, though the profession has progressed as none other has, despite of this progress, and notwithstanding higher standards, infinitely better work, and devotion to that work as a means of livelihood, it is deplorably worse to-day than it was 35 years ago, when I entered it.

There are many factors which contribute to the ultimate product. Doubtless each and every one of you can, with little thought, add even more potent reasons than those I am now to mention; but I will only mention four, which to my mind are the most serious, viz., overcrowding of the profession, hospital abuse, inordinate increase of friendly societies, advertisement of drugs and the education of the public in their common use.

To confirm and illustrate my ideas I am enabled in the case of the first three to appeal to figures. Table A gives the number of medical practitioners registered and the number of new issues in each year from 1896 to 1906, also the mean population of the State for those years. It requires little arithmetical knowledge to show that the increase in ten

years has been 319 in the number of practitioners registered; and that whilst in 1896 there was one practitioner to every 1044 persons, in 1906 there was one to every 986.

I believe it is an understood idea that 1000 persons will, on an average, just support one medical practitioner; at any rate I have got that idea fixed in my mind as a fact. It is plainly shown then that we are falling below the healthy average, and though the decrease is comparatively slight, yet when that decrease is examined, together with the figures given in Table C, it is obvious that the loss to the profession is even more than is displayed.

Much has been written and many suggestions given to stay the tide; but I doubt if anything that may be done to increase the difficulties of entrance into the profession (a suggestion which has been made) will ever suffice. Time, and time alone, demonstrates facts in problems like these; and difficult as it is to find openings in life for our children, the fact will become patent that the profession is becoming overcrowded, and the cautious man will think twice before throwing in his lot.

It is ambition on the part of many, conceit on the part of some, that makes so many enter the profession. Each and every one thinks he has the chances and opportunities of those who have gone before; too late he finds that the "chances" in the profession are few indeed, and that the "opportunities" are vastly influenced by the length of his purse.

Table B deals with the question of hospital abuse in a practical spirit. It demonstrates that in 18 years there has been an increase of 53 public hospitals and 2332 beds, and that the proportion of beds to population has increased from 1 in 539 to 1 in 356. If the figures for 1907 had been available they would have shown a still larger increase by including the new beds in the Prince Alfred, Sydney, and North Sydney Hospitals.

Comment as one will on figures, deduce whatever argument one likes, I consider force of circumstance and changes in our methods have contributed more than anything else to the increase of hospital accommodation; and what is more, it will continue. It is the medical practitioner and the surgeon who have clamoured for the increase, and we must hardly blame the public for taking advantage. Abuse *does* exist, and it is essential that it should be exposed and prevented. The first step is, in my mind, the absolute elimination of the paying patient in all public hospitals.

Confine these hospitals, as they should be, to pure charity, and you will go a very long way to the avoidance of the abuse. Whatever scheme is evolved to afford hospital accommodation for the paying patient (and it is not hard to formulate many), it would enhance the self-respect of the charitable institution and do much to preserve the interests of the profession.

The third factor I have mentioned is borne out by referring to Table C. You will notice that the proportion of members of friendly societies to the population has increased in eight years by 2·2. If continued at anything like this rate private practice would soon be a thing of the past. The reason of increase is again obvious. What was originally a perfectly well advised and magnificent scheme has been taken advantage of by the public, and the majority of these societies are becoming vast political organisations.

The medical practitioner is proverbially a bad business man, and he has allowed the friendly society to get the best of the bargain. We now fight for propositions which we should have been in position to dictate.

Anyone who has read the correspondence published during the past year in the *British Medical Journal* under the ominous heading of "The Honour and Interests of the Profession," will understand the political changes in the profession which are foreshadowed in the new charter. That the policy of the profession must have changed is obvious; but, again, circumstance is solely responsible. Whatever policy is adopted, whatever organisation or massing of powers is contemplated to further that policy, I am confident that the honour of the profession will never be assailed. That honour each and every one of us holds as an individual and sacred trust; and so long as that principle is upheld, so long it is safe. To be business-like and alive to the interests of its members does not imply that the Association will lose caste.

The fourth factor is undeniable. It is an evil more potent for harm to the public than the profession, and for that reason we should use every endeavour to prevent it. I happen to have price lists of certain well-known firms in this city before me, mixed up with drapery, garden tools, and what not. I find a formidable list of drugs, including cocaine, phenacetin, salicylate of soda, Blaud's pills, etc. The general practitioner suffers, for there can hardly be a prescription that he can write that cannot very nearly be produced in tablet form

and procured for a few pence from any chemist. It is not long since I came across a case of a young girl who was taking strychnine procured in tablet form from a druggist; and I have seen dozens of bottles of tablets containing salicylate of soda, arsenic and iron, bromide of sodium, etc., littered about the rooms of patients, all procured without medical advice.

There is little doubt that one well-known firm has done more than can be estimated in the reduction of the incomes of medical practitioners and chemists.

During the past year the introduction of clinical evenings has been marked with a success which is more than satisfactory. The Branch would do well to even yet increase the number of meetings by having special evenings set apart for the discussion of subjects affecting the interests of the profession. At least one extra meeting, once a quarter, would do much to develop a better understanding of the views and needs of the members of the Branch.

I have little more to add, except to thank you again and again for the honour you have done me. My position is a lowly one in the profession, and that fact has, I fear, expressed itself too often. I felt from the first unfitted for the office, and diffidence with timidity has perhaps made me wanting in many ways. I beg you will forgive me when you are assured that I did my best.

TABLE A.
MEDICAL PRACTITIONERS REGISTERED BY THE N.S.W.
MEDICAL BOARD, 1896-1906.

Year.	Issued.	In force at end of year.
1896	68	1,216
1897	50	1,240
1898	41	1,271
1899	52	1,311
1900	55	1,323
1901	84	1,382
1902	65	1,420
1903	70	1,465
1904	49	1,490
1905	60	1,494
1906	82	1,535

MEAN POPULATION OF NEW SOUTH WALES.			
1896	..	..	1,270,620
1906	..	..	1,514,390

TABLE C.
TOTAL NUMBER OF MEMBERS OF FRIENDLY SOCIETIES.
MALE ONLY.

1898	..	..	74,079
1906	..	..	97,805
Increase in 8 years, 23,726.			

MEAN POPULATION OF NEW SOUTH WALES.				
1898	..	..	..	1,312,455
1906	..	..	..	1,514,390

PROPORTION OF MEMBERS OF FRIENDLY SOCIETIES TO
POPULATION.

1898	..	..	..	1 to 17.7.
1906	..	..	..	1 to 15.5.
Increase in 8 years, 2.2.				
Population increase (8 years)		..	15.3	%
Friendly Society "		..	32.028	%

TABLE B.
HOSPITALS IN NEW SOUTH WALES.

Year.	Number of Hospitals.		Number of Beds.	
	Subsidised.	Not Subsidised.	In Subsidised Hospitals.	In Hospitals not Subsidised.
1888	80	1	1,787	133
1906	125	9	3,688	564

NOTE.—This return does not include private hospitals.

MEAN POPULATION IN NEW SOUTH WALES.				
1888	..	..	..	1,035,705
1906	..	..	..	1,514,390

TREATMENT OF TUBERCULAR DISEASE
OF JOINTS.

By C. E. Todd, M.D. (Bruz.), Adelaide.

My rather limited experience of the treatment of tubercular disease of joints is confined to the carrying out of two methods: first, hygienic means combined with fixation of the affected joint; or, second, in more advanced cases or in easily accessible parts to erosion or excision. Of the other recognised forms of treatment, such as induced hyperæmia, exposure to sunlight, the injection of iodoform emulsion, etc., I have no actual personal experience. In every case of tubercular joint I give fresh air, forced feeding, cod liver oil, and fixation—either with or without Scott's dressing—a prolonged trial, and my experience has, in early cases, been very favourable indeed. Lately I have been combining this form of treatment with the fortnightly hypodermic injection of Koch's new tuberculin; whether this has been beneficial or not I cannot yet decide, but I have not noticed any evil general results from its use, and I intend to give it a further trial.

If tubercular joints fail to improve under this general treatment, I generally do either an excision or an erosion, and it has not been my practice to wait for the formation of abscesses or sinuses, with all their constitutional symptoms and dangers. In fact, I believe that in the near future excision of such joints will almost be the routine practice. The results, for instance, of excision of the knee-joint in adults are excellent, and in an aseptic operation the risk to life is very slight indeed, and the patient is once for all rid of a

tubercular focus. I have never regretted excising a knee early, but I have often been sorry at not doing it soon enough. I excised a knee-joint three weeks ago in a woman of highly tuberculous family history, and in whom symptoms of pain and swelling had existed for 13 months. As a result of the operation she has had very little constitutional disturbance and pain, and her general health is already much improved. She has some union between her divided bones. The risk of disseminating the tubercle is perhaps a real one, but the obvious advantages more than outweigh this risk. I shall in future advise excision in every case of knee-joint tuberculosis so soon as it is obvious that rest and fixation have ceased to do good. I shall, of course, get an absolutely stiff leg, but the limb will be a strong one, and the union will be in good position. In any kind of real cure the knee is, of course, stiff, but after excision there is no joint to start the disease afresh, whereas after cure by rest the synovial membranes and articular cartilages are at any rate partly kept, and disease may start afresh. Erosion of a joint is a difficult operation to do thoroughly, and is just as risky as excision, and has very few of its advantages. It should never be done in adults. In the case of children I think excision is better if care is taken not to include the epiphysis; if there is tubercular bone deposit under the articular cartilage erosion will not get rid of it, but excision will, and in any case that diseased portion of bone must be got rid of before a cure can result. What I would strongly advocate is early excision in accessible joints. This, I am persuaded, will be the practice in the near future. It is just as reasonable to leave a tubercular joint unexcised, when excision is possible, as it is to delay treatment in malignant disease.

(Read before the South Australian Branch of the British Medical Association.)

SOME BRITISH AND FOREIGN CLINICS.

By Ralph Worrall, M.D., Honorary Gynaecologist to Sydney Hospital.

(Continued from p. 120, March No. of the A.M. Gazette.)

FOREIGN CLINICS.

Paris.—Most Paris hospitals have a tumble-down appearance outside, but the interiors, as a rule, have been brought up to date.

L'hôpital Broca.—Comparatively new. The spectators in the theatres are screened o

by glass. Dr. Dartiques, Professor Pozzi's assistant, did an operation on a conical cervix for sterility. After excising an edge-shaped piece anteriorly and posteriorly and suturing the raw surfaces, the os was left gaping; over 20 silver wire sutures were used.

Professor Segond kindly invited me to some private operations at a religious hospital, Rue de la Saute, where the nuns wore black head-dresses trailing down the back. He removed the testicle in a boy in whom it was undescended. Professor S. thinks that when the testicle is pushed back into the peritoneal cavity it may give rise to peritonitis or become the seat of neoplasm. He next did a total hysterectomy for myoma with a large malignant ovarian tumour and another mass of disease in the sigmoid. The latter was left to be dealt with at a later date. A Cleveland's ligature carrier was used to apply the ligatures—silk for the larger and catgut for the smaller vessels. A large rubber and gauze drain was carried from above the pubis to beyond the vulva. The parietal wound was closed with through-and-through thick silver sutures, passed with a Reverden's needle. Third case, complete rupture of the perineum, treated by flap splitting, extensive separation of the rectum from vagina, with much hæmorrhage. Silver wire sutures beginning anteriorly. I noticed that the fees were paid at the time in each case.

Hopital Cochin.—Professor Faure, using oxygen and chloroform as an anæsthetic, did a total hysterectomy for extensive cancer of the cervix, employing the combined method (vagina-abdominal). The internal iliac artery was tied on each side directly the abdomen was opened. All ligaturing and suturing is done with a Reverden's needle; catgut for both. Two bleeding points deep down in the pelvis were secured by Michel's metal sutures. Rubber tubes and gauze for vaginal drainage. Closure of peritoneum; several glands removed with the uterus; parietal wound closed in layers with catgut. Whole operation, including disinfection, occupied one hour.

Dr. Chas. Walther, in the Hopital de la Pitie, did a subtotal hysterectomy for chronic metritis and salpingitis. Both ovaries were removed, although the patient was young. The raw surfaces of the cervix were united by continuous catgut, after the canal had been burnt out with the actual cautery. Catgut ligatures passed with Reverden's needle. The appendix was removed by crushing, thermo-cautery and catgut ligatures. Parietal

wound usually closed in layers with catgut, but on this occasion through-and-through sutures of double horsehair used. Chloroform was given by Ricord's apparatus, preceded by an injection of scopolanime, 1 mm.

At the Hopital Lariboisière, Dr. Hartman did nephrectomy for tuberculous kidney, using catgut ligatures passed by transfixion with Reverden's needle. Morris' long incision; two large drain tubes were inserted, and the wound closed with through-and-through silver wire sutures.

Dr. Chas. Walther kindly made me a member of the Congress of French Surgeons. It seemed to me that the most popular paper was one by Dr. Robert Jones on "Transplantation of nerves and tendons in the treatment of paralysis." Another good paper was by Professor Segond on "Chronic surgical affections in their relation to the accidents of labour."

At the Hopital Cochin Professor Faure did two subtotal hysterectomies for myoma. Each operation occupied 20 minutes. The cervix was closed with catgut; catgut ligatures passed with Reverden's needle for the vessels; continuous catgut in layers for parietal wound, also passed with Reverden's needle. Both appendages always removed. Professor F. also operated on a case of chronic salpingitis with adhesions. The uterus was bisected by the thermo-cautery and each half removed with its corresponding appendage. The ovaries were fairly healthy. A large rubber drainage tube inserted in lower angle of abdominal wound.

At the Hopital de la Pitie, Professor Gosset did appendicectomy, completing the operation in 10 minutes. The appendix seemed fairly normal; it was removed with the thermo-cautery, after flap of peritoneum had been turned back; catgut ligatures and Reverden's needle. He next operated on a young woman already operated upon twice by other surgeons (appendicectomy and removal of one appendage). The old cicatrix was excised; a pus sac aspirated and excised on R, left appendage also removed, although the left ovary appeared healthy. (No sign of either appendage having been removed at previous operations). Total hysterectomy was done. A rubber and gauze drain passed from pelvis to beyond vulva. Silk was used for vessels and parietal wound. Professor G. does not use any disinfectant but soft soap, alcohol and ether. Chloroform is given in the French complicated apparatus. In hysterectomy for

cancer the same technique is observed, except that the ureter is isolated.

At the Broca I saw Professor Pozzi do a subtotal hysterectomy for multinodular myoma. Several of the nodules were excised first to make mass smaller and more movable. The cervix was sutured. Hagedorn's needles and Pozzi's holder were used.

Pozzi then gave a demonstration of the treatment of inoperable cancer of the cervix by an intense current of electricity. The disease is readily scraped away after the current has been passed for a few minutes.

Second, Faure, and Gosset are typical French surgeons; alert, enthusiastic, brilliant. Pozzi, Hartman and Walther are equally learned and most careful and conscientious in their work. All these enjoy a high reputation, as does also Professor Tuffier at the Lariboisière. While I was there he did a jejuno-oesophagotomy, the second case on record.

Doyen is a man of magnificent physique, with mobile, expressive, strongly marked features, a melodious voice and persuasive speech. It is said Doyen never sleeps, and the tired look in the eyes gives foundation to the statement. When one goes into his laboratories and sees the hundreds of sections of malignant growths, all of which he examines and tabulates himself, one wonders how so much work can be compressed into a 24 hours' day.

Doyen's first case was diagnosed "probable gall-stones." It proved to be a hard thickening of the pylorus with some dilatation of the stomach. There were many adhesions. The incision was long and there was much exposure of the small intestines for several minutes, while the nature of the condition was being ascertained. A pyloroplasty was done with the thermo-cautery and silk ligatures. D. said "this was a more rational and successful procedure than gastro-enterostomy." The needles used were sharp and curved, held in a pressure forceps. The parietal wound was closed in layers by silk, the ends were left long so that the sutures could be drawn out in 14 days. The skin was united by Michell's clips. Operation occupied 40 minutes.

He also did a vaginal hysterectomy for doubtful cancer of the cervix. The uterus was fixed and the vagina narrow. Douglas' pouch was opened as a first step, the uterus was bisected, the broad ligaments clamped by two of Doyen's forceps on each side, and each half of the uterus cut away, leaving the appendages. The vault was stuffed with gauze,

but not sutured. The operation occupied 16 minutes. D. said if the microscope revealed cancer he would do abdominal section and remove the parametrium in two weeks. During the operation the anal aperture was closed by a large tongue forceps. Another operation was removal of a goitre; it proved to be suppurating, so was merely drained. Doyen is careless in his aseptic technique and talks all the time he is operating, yet one cannot help feeling that he is a great man.

He showed about a score of patients who had been treated by his serum with and without operation in addition. The antitoxin of the micrococcus neoformans is injected one day and the cocci the next. In some cases this treatment seemed to have had a beneficial effect. There are about 120 rooms in his private hospital.

Berlin.—At the Langenbuck Hospital, Bier's clinic, Professor Schmieden, Bier's assistant, operated on a hernia in a boy with undescended testicle: chloroform was the anæsthetic. Skin and hands disinfected with soft soap, alcohol, petroleum, ether, then hands sprayed with a solution of wax in ether as a substitute for gloves. The sac was laid open and obliterated with silk sutures, but not isolated. The testicle was brought down to bottom of scrotum and sutured to the skin surrounding an opening made there.

Professor Klapp, another assistant, removed the coccyx in an old man for coccydynia, under lumbar anæsthesia, which was quite successful; but in the next case, excision of the rectum in a young man, it was a failure, and chloroform was used after half-an-hour of what was apparently agony to the unfortunate man. The operation, too, had to be abandoned, "as the disease had extended too high."

I visited Professor Strassman's private clinic and saw him do an ovariectomy. Instead of shaving, a preparation called "Hair Fiend" is used to destroy the hair in a few minutes. Quantities of water and disinfectants are poured over the abdomen, wetting the patient and the floor so that goloshes are quite necessary. A special spoon-shaped forceps is used to hold up uterus without injury, while catgut ligatures are applied to the pedicle. A conservative operation was done on the tube of the opposite side. Parietal wound was closed by through-and-through silk sutures with separate catgut for peritoneum and aponeurosis. Anæsthesia: chloroform, preceded by injection of scopolamine. Professor Strassman is a great

advocate of the vaginal route whenever possible. In young girls he does Alexander's operation for retro-displacement, but otherwise he treats this trouble by vesico-vaginal fixation of the uterus associated with any plastic operation which may be necessary, and curettage. The kolpo-perineorrhaphy was that of Hegar. The combined operations in the case which I saw him do occupied 30 minutes.

In cancer of the cervix, Professor S. does vaginal hysterectomy in favourable cases and old people, "as the mortality rate is so high in Wertheim's operation."

A complete rupture of the perineum was operated on 24 hours after its occurrence by silk sutures tied in rectum and catgut for vaginal raw surface and skin. In another case the left appendage was removed through the anterior fornix with much difficulty owing to the great adhesions. Professor Strassman's aseptic technique is good, and he is a great master of vaginal surgery.

Landau's Private Clinic.—I saw vaginal hysterectomy for chronic metritis and sub-involution. Both appendages were removed. Both silk and catgut were used. In another case abdominal section was done for atresia of the vulva with hæmatosalpinx and ovarian cyst. On the other side the ovary and tube were enlarged and oedematous, but fairly healthy. They were, nevertheless, also removed. The vulva was incised by assistant, and much tarry blood evacuated. A third case was diagnosed appendicitis. The appendix, which seemed normal, was removed through incision along outer border of rectus. Method was the peritoneal flap and purse-string suture. Dark ascitic fluid escaped. Two papillary ovarian cysts were discovered. Median abdominal section was then done and the tumours removed by ligating pedicles with catgut in sections passed with sharp needle held in holder. Parietal wound closed in layers with catgut. Landau makes a very careful aseptic technique.

At the Charity Hospital, Prof. Bumm, assisted by Prof. Lippman, did vaginal hysterectomy for chronic metritis and small broad ligament cyst. Both ovaries were removed, although healthy. The specimen showed a myoma the size of a nut in anterior uterine wall. The method was hemisection ante-version of the uterus and ligation of the broad ligaments from above down with catgut passed with Martin's sharp full-curved needles held in his holder. The vault was closed with-

out drainage. In the preliminary cleansing, Bumm applied a cloth to the anus and then to the vulva; otherwise his aseptic technique was good. He operates silently and rapidly. His face is mask-like, not betraying the slightest interest in the proceedings. His assistants perspire profusely, while he remains calm and cool.

Second Case.—Abdominal fistula due to infected silk ligature, following operation for ventro-suspension. The operation consisted in passing a sound down to the posterior vaginal fornix, cutting into it with the thermocautery, and passing a long drainage tube from abdomen to vagina.

He also did a total hysterectomy for myoma, standing on right of the patient. The broad ligaments are clamped in sections, and the vessels afterwards ligated with catgut passed with Martin's sharp needles held in holder. Two veins and the right uterine artery were wounded in passing the needles. The vault was completely closed. The parietal wound was closed in four layers. Peritoneum, muscle, aponeurosis with catgut, and skin with bronze wire; the latter passed with straight needle and thimble. Time occupied, 55 minutes.

Procidentia uteri in a woman of 57 he treated by vaginal hysterectomy combined with anterior and posterior colporrhaphy. The sutures for the latter were continuous catgut reinforced with interrupted silkworm gut for each. Time occupied, 32 minutes. He also did vaginal hysterectomy with removal of both appendages in a woman of 47, whose symptoms were pain and hæmorrhage. The condition was chronic metritis, lacerated cervix and retroflexion. The operation was difficult owing to moderate fixation and narrow vagina. Time occupied, 40 minutes.

Mackenrodt's Private Clinic is a modern structure which cost £50,000. There are 75 beds. The stairs are of white marble, the centre covered with rich Turkey carpeting. The walls for a height of six feet are also marble. Each floor is composed of four layers, viz., cement, coke, cork and cement linoleum—a new preparation with the advantages of both these substances. The corridors have floors of terazzo. Each patient pays from one to seven guineas per week. All have the Mackenrodt patent beds, which allows of the patient being put in any position with the greatest ease. I saw M. do two operations. His anaesthesia for first case was ether given in an ordinary mask covered with oiled silk.

First Case.—Retroversion with fixation, usually treated by opening up one inguinal canal, isolating its round ligament, dilating the internal abdominal ring, entering the peritoneum, separating adhesions, closing the internal ring with catgut, including the base of the round ligament, which latter is then severed at its distal extremity and used as a thread with which to suture the external oblique aponeurosis. The skin is then united with a continuous suture of bronze wire. M. says it is necessary to carry out this procedure on one side only. In this particular case he found such extensive adhesions on the other side, and a cystic ovary (similar to one on the operation side, which ruptured in the endeavour to extract it through the small opening of the internal abdominal ring, and discharged two or three ounces of contents into the peritoneal cavity) that he did a second operation of median abdominal section, resected cystic ovary, separated all adhesions, and did ventro-suspension in addition. Duration of the two procedures, one hour.

The second case was a woman of 27 with advanced cancer of the cervix, who had been refused operation by another surgeon. Patient showed slight emaciation. The left parametrium and vaginal wall were involved. He did complete hysterectomy, resecting over two inches of the left ureter, implanting the proximal end into the bladder, fixing it there by two silk sutures. In addition the end was transfixed by silk, which was carried through urethra and tied to a forceps outside the vulva, so as to keep up extension. Glands were removed in both sides with parametrium; the dissection was most extensive, but was comparatively easily carried out, owing to the room given by Mackenrodt's flap incision of the parietes. The peritoneum was brought together by silk to shut off the huge raw surface, which was drained with gauze; all the vessels were ligatured with catgut carried by Martin's needles and holder. Peritoneum united by continuous catgut. Aponeurosis and muscles taken together by aluminium wire as interrupted suture. Skin closed by the same material. Both angles of the prevesical space drained with glass tubes containing gauze. Patient did not seem to lose much blood, but was very anæmic at close of operation. Anæsthetic was lumbar puncture with tropacaine for the first 40 minutes (during which the patient seemed to be in considerable pain) and chloroform after.

The assistants wear wire masks covered with gauze, rubber gloves, but not sleeves. The nurses' heads are uncovered. The washing of the patient is very thorough; a nailbrush is used to skin of the abdomen and vulva. The floor of the theatre is covered with water, so that goloshes are necessary. Mackenrodt impresses one as being a clever, expert operator.

At Olshausen's clinic Professor Haenkel has of late done the operations, but as he has just been promoted to the chair at Granwald, he allowed Dr. Jolly to do a vaginal hysterectomy for cancer for him. The sharp spoon and cautery were used *immediately* before the operation, which was carried out with catgut ligatures.

Duhrssen's Clinic (private).—**First Case:** Retroversion with fixation. Anæsthetic given by Dr. Silvermann, an American, was ether, on lint folded inside yellow oiled silk. Vaginal fixation done, preceded by curettage and injection of a solution of zinc chlor. into uterus. One silkworm gut suture is passed through the mucosa, vesical peritoneum, and deeply into anterior uterine surface. (It is removed in six weeks.) Then the peritoneum is united separately with catgut, flaps of mucosa removed to allow of an anterior kolporrhaphy being done, the space between peritoneum and mucosa drained with gauze for 12 hours, and the mucosa united by continuous catgut. Finally a kolo-perineorrhaphy (triangular denudation) was carried out.

Second Case.—Multinodular myoma, size of a child's head, removed by vaginal hysterectomy, with hemisection and morcellement. Both appendages also removed, although normal, and the patient below 40. The vault was completely closed without drainage. All ligatures of catgut passed with sharp, curved needles and holder. The operation was extremely difficult, and occupied 1½ hours. No masks nor caps for either surgeons or nurses in Duhrssen's clinic, but in other respects he is as thorough in his aseptic technique as any of his rivals, and is undoubtedly an able exponent of vaginal surgery.

At the Charity, I saw Professor Hildebrandt remove a goitre, using many clips.

Dr. Eugene Joseph, at Bier's clinic, gave me private lessons on Israel's modification of Nietze's cystoscope, and demonstrated his indigo-carmin method of ascertaining the conditions of the kidneys. 20 c.c of 0.4 per

cent. solution of indigo-carmin is injected deeply into buttocks. In 10 minutes one can notice through the cystoscope jets of blue issuing from the ureteral orifices; if this is less apparent on one side than the other that kidney is functioning less efficiently.

Dr. Karo, who is another popular teacher of the cystoscope, brought under my notice the Phloridzin test; 5 mgr. of a boiled 1 per cent. solution injected into the buttock will produce sugar in the urine in half an hour if the kidneys are normal. The urine from each kidney is obtained by ureteral catheterisation.

The Anglo-American Medical Society of Berlin is a striking example of the value of combination for a common object. The Society meets every Saturday night at dinner. After dinner there is an address from one of the leading teachers in Berlin. The night I attended Professor Bier gave an address with demonstration on his hyperæmic method. Dr. Honau, an American practising in Berlin, is president of the Society. Nothing could exceed the kindness of the Americans to myself. I should not have seen nearly so much as I did had it not been for their help. I advise all Australians to join the Society; the subscription is only 5s.

Professor Kocher, at Berne, I saw do several operations. Appendicectomy: Appendix tied after crushing with K.'s forceps, stump covered over with transverse sutures (purse-string sutures condemned by K.) Incarcerated inguinal hernia in a boy, on left side: Incision almost transverse from nearly root of penis; cæcum presented adherent; sac was ligatured after transfixion with silk, canal closed with interrupted sutures which included some muscle. Large goitre in a young woman removed under local anæsthesia by knife and K.'s blunt dissector, almost bloodlessly. After ligation of vessels a nut-like portion of the gland was separated from the main mass, crushed and ligatured, and left behind. Isthmus treated similarly. Muscles sutured over stumps. Glass drainage tube for 24 hours. Head and neck flexed forwards on thorax by bandaging. Patient kept in a sitting position in bed. Removal of the tumour took 16 minutes.

Congenital dislocation of hip in a girl of about 10. K. had operated several months before, but child had been taken home too soon, and relapse had occurred. Incision made over back of joint. Muscles, fascia, capsule and periosteum lifted together off head of femur,

which was then levered into position by K.'s special instrument for the purpose (made by G. Klopfer, of Berne). The above structures were then brought back into position and carefully sutured so as to form a splint. The thigh was everted and abducted, and retained in that position by plaster of Paris bandage reinforced by wet wood veneer strips. Pillows are arranged in bed to aid maintenance of the above position.

Excision of tarsus for post-paralytic equinovarus was done under lumbar anæsthesia.

A young Russian Nihilist was then operated upon for a shattered upper arm by police bullet. The musculo-spiral nerve had been cut and the divided ends had become tangled up in the callus thrown out. Very troublesome dissection necessary to find the ends of the nerve, which were then split and united with catgut (silk not used, as there was a discharging sinus). Muscles carefully sutured between the bone and the nerve to prevent recurrence of their union.

I saw a man who had recovered from an extensive rupture of liver treated by suture. Several subsequent operations were required for suppuration due to necrosis of the liver substance. Kocher has had a very large experience in exophthalmic goitre, which he treats by ligaturing one artery after another under local anæsthesia, with interval between each operation. Finally the tumour is removed.

During the clinical lectures the students are called up and asked to draw diagrams on the blackboard of the conditions or operations discoursed about. There is a very good lever apparatus with which the patients' beds are seized and wheeled into the theatre. As in almost all the Continental clinics, the floor of the theatre is kept wet with sublimate lotion or water. Kocher is under a great disadvantage in having to work in a hospital which is run as a private speculation by lay persons, the Government paying for pauper patients. The nurses are nuns. Their hair is not protected, "as doing so otherwise than by their own special costume would violate the rules of the order." Rubber gloves with cotton gloves over them are worn by Kocher and his assistants, but no masks nor caps. There are five or six assistants at most operations. The catgut or silk has occasionally passed through three hands before reaching Kocher. Silk is generally used, but catgut for infected wounds and also for capsule of joints. The needles are sharp-edged and held in the needle-

holder used by most Melbourne and Sydney surgeons. The surrounding skin is well protected by sterile cloths. Glass drainage tubes are always used instead of rubber. Many operations are done under local anæsthesia (20 to 40 c.c. of 1 per cent. novocaine). Lumbar anæsthesia is also used, and if it should prove insufficient chloroform is given. The face of patient is always protected by a screen on a wire frame. Xeroform is used instead of iodoform, except in tubercular cases. Kocher is most careful, conscientious and wise in his work.

I was much interested in the clinic of Professor Roux at Lausanne. At the Cantonal Hospital he begins at 7.30 a.m. with a clinical lecture to a class of about 70, women (chiefly Russians) predominating. Patients are brought in and members of the class asked to examine and diagnose and suggest treatment; then R., with dramatic gesture and caustic language, exposes the errors made, frequently causing suppressed merriment; finally in vigorous, animated sentences he places the salient features of the case before the class. There were cases presented of cancer of the breast, tubercular wrist, fracture of internal condyle of humerus.

Roux is about 45, short, bent, with much matted iron grey hair, a forehead broad, high and deeply furrowed; fiery deep set eyes, a drooping moustache; the face generally expressing determination, energy, and much anxious thought. He wears no cap, mask, nor gloves. The hands are prepared by scrubbing, then rubbing with 95 per cent. alcohol, then watery solution of corrosive. The finger tips are painted with tincture of iodine. The nurse's hair is not protected, but is plastered with some kind of oil. The chloroform mask is covered with sterile gauze, and also the drop bottle. Catgut is used for ligatures and sutures, but silk for bowel; the drainage tubes are rubber. A skeleton articulated and separate bones are kept in the theatre, to which the surgeon can refer when necessary.

There were two cases of operation for multilobular cystic goitre in young women. Each lobule (about 15 in the first case and three in the second) was separately enucleated and the ragged bleeding capsule sutured with catgut by means of a right-angled Reverden's needle. A rubber drainage tube was inserted through a stab puncture below the incision, the edges of which were brought together with Michel's clips. Dressings were

gauze fastened with collodion, wool and bandage over.

Fibro-sarcoma of the lower jaw in a young woman, which had been removed seven years ago by R. without any recurrence. Six months ago he transplanted a piece of fibula to correct the deformity. The result was quite successful, except that it was slightly too long, so that the chin was pushed to the opposite side and movement was slightly interfered with. Under chloroform R. removed a small piece of the zygomatic arch so that the new ramus could be pushed under it, and thus the inclination of the chin to the opposite side corrected.

There was an examination of a boy of about 14 who had swallowed "potash," which had caused stricture of the lower end of the œsophagus. This was R.'s celebrated case of jejuno-œsophagotomy, the first on record, which he had planned and successfully carried out to cope with the above condition. The boy had gained flesh since the operation, which took place several months before I visited the clinic. A small fistula remained opposite to the left sterno-clavicular articulation. Pressure on the bowel lying between the chest muscles and the skin caused an escape of fluid from the fistula, which litmus paper showed to be neutral. R. proposed to do another operation to close the fistula.

At his private hospital Roux did appendectomy in a woman who was very ill with embolism of the brain, bilateral femoral thrombosis and embolic pneumonia (the latter almost disappeared). These lesions were supposed to be due to appendicitis from which the patient suffered five months previously. Gridiron incision, no vessels needed clipping. A long but apparently normal appendix removed by crushing one inch from cæcum, then ligaturing with catgut after cutting through with thermo-cautery; the stump buried with two transverse sutures. Buried catgut for closing the aponeurosis, and Michel's clips for skin. R. says it is common for the appendix to show no sign of the inflammation after several months. If he cannot operate in the first few hours he prefers to wait at least six weeks.

Ventral hernia following pregnancy, which had already been operated on and the umbilicus excised; recurrence had taken place. Operation performed under local anæsthesia, which allowed of considerable pain being felt.

Semi-circular incision, excision of sac, union of peritoneum, and aponeurosis with silk sutures.

Myoma uteri, size of a fair-sized orange, in anterior uterine wall. Myomectomy done. Vascular bed closed with buried catgut in three layers. The ends of the final layer were carried through the parietes and tied eventually to anterior aponeurosis, thus uniting the anterior surface of the uterus to the parietes, so that if infection of the myoma bed should take place the pus might find its way externally. The wound was closed by continuous catgut for the peritoneum, interrupted silk for the aponeurosis, and Michel's clips for the skin.

Colotomy by a new method for inoperable cancer of the rectum in a middle-aged man. Incision from root of penis upwards for three or four inches, exposure of the pubis, excision of part of this by chisel and mallet, first horizontal and then vertical section at each side. Bladder fell away consequent on this. Peritoneum was opened above bladder. Sigmoid hooked out with finger. Rod passed through meso-sigmoid. Sigmoid sutured to skin margin with catgut. Wound above the bowel closed. As there was no distension, bowel will not be incised for a few days. By this method the new anus can be closed by a rubber plug and light band without any pain from pressure in the pubis which has been removed. By stooping forward defecation can be accomplished in a cleanly manner, and toilet can be easily made. R. has had excellent results from this procedure, and one case done four years ago is still alive. Roux is original, able, dexterous, and quite wrapped up in his work.

A CASE OF ACROMEGALY.

By Guy L'Estrange, F.R.C.S.I., Brisbane.

THE following case came indirectly under my notice. The patient suffered from a tumour involving the left lateral nasal wall, completely occluding the nostril, which he wished removed. Noticing what I considered the features of acromegaly, I persuaded him to allow me to take some notes and observations on his condition, it being sufficiently rare to merit notice. Treatment was never mentioned, and I fancy would not be accepted, even were

I able, which I am not, to suggest any conscientious method.

A.B. is 43 years of age, a native of London; height 5 ft. 10½ in., weight 203 lb. On observation one is struck by the excessive size of his head, his features, his hands, and relatively so his feet. He appears slightly anæmic, but this turned out not to be the case. His hands are large, misshapen, and, as described in the text-books, spade shaped; his feet are decidedly above normal size. His features are large and flabby-looking; his tongue large for his mouth, and his lower jaw prognathous; the teeth do not approximate properly, and he is undershot. He cannot ascribe any cause for his affection, nor can I suggest any. It first was noticed by him in 1892, when engaged in pastoral pursuits in Western Queensland. The first symptom was a numbness and tingling of the hands, which he describes as having been like an aggravated form of pins and needles; this was followed by intense irritation of the palms of the hands, and later by pains which increased gradually till they became almost intolerable, making sleep almost impossible. When the disease was fully established, the pains became so intense that he frequently got out of bed and beat his hands against the wall. No treatment seems to have benefited him, and it seems from his statement that the character of the affection escaped notice and his troubles ascribed to rheumatic pains. Immersing his hands in cold water was his only means of relief. Superior hemianopia developed and persisted for several years. There was no paræsthesia in the feet or lower extremities nor in any other part of the body; the reflexes are normal. Enlargement was most marked in the hands, but did not extend above the wrists. At the time I saw him he required an 11½ boot, and has to get his gloves specially made for him. I took some measurements of his head; the occipital circumference was 27½, showing the enlargement and protrusion of the lower jaw, and the occip-frontal 24½. I have got from his dentist a cast of the mouth, showing the unusual shape, also the characteristic spaces between the teeth. I show an outline sketch of his left hand, which indicates clearly the size. I regret that it is impossible, for reasons of a private nature, to put a photograph before you, nor would the patient for the same reasons be available for inspection to-night. There was no disease of other organs; his urine was normal in every

respect; slight enlargement of the left side of the heart, but not as marked as recorded by some observers.

Noticing the apparent anæmia I took a blood smear, which was kindly reported on by Dr. Jack Thompson as follows:—"I find no abnormality of any kind as regards the red cells; no nucleated forms were present. In a differential count of 1900 white cells I found one myelocyte, and the percentages of the other forms worked out as follows:—Polymorphonuclear neutrophiles, 49.4; eosinophiles, 4.75; small lymphocytes, 42.5; large lymphocytes and transitory forms, 3; basophiles, 0.6."

Thus there is a considerable diminution in the proportion of the first mentioned, normally 60-75 per cent., with a corresponding increase in the small lymphocytes, normally 20-30 per cent. The figures given for the other varieties show little if any departure from their normal proportions.

Osler¹ defines acromegaly as "a dystrophy characterised by abnormal processes of growth in the bones of the face and extremities," occurring rather more frequently in women than in men, and onsetting about the 25th year. The symptoms generally found, and which were features also of this case, are an enlargement of the hands and feet, which are, however, in no way deformed, and can be used freely; a spade-like appearance of the hands, with deepening of the lines on the palms—the arms are rarely affected; increase in the size of the head, especially of the face, which is enlarged owing to a hypertrophy of the maxillary bones, markedly the lower; projection of the lower maxilla. The alveolar processes are widened and the teeth separated, "the lukenbilding" or window aperture of German writers. The lips are thickened; the nostrils are large and broad, the eyelids enlarged, also the ears. The tongue partakes in the general enlargement.² All these were present in this case under notice, but I failed to notice any kypnosis or enlargement of the thyroid. There was, strange to say, never any headache. Osler describes, in common with most authors, a form of hemianopia, generally bi-temporal, due to pressure. Eye symptoms are recorded in about 60 per cent. of all cases. The hemianopia is generally bi-temporal and usually is an early symptom. In the case under notice the affection was among the early symptoms, but peculiar in that the lower half of each disc was involved, causing

superior hemianopia. The patient, in order to see, had to bend his head down and peer out, as it were, under his eyebrows. Purves Stewart³ says of hemianopia: "The affection is bilateral, due to a lesion of the optic fibres at or behind the optic chiasma; such chiasmic lesion may be the result of pressure by tumours, syphilitic or other affections of the basi-sphenoid, by tumours of the pituitary body, as in acromegaly, and by tumours of the brain and its membranes. If the lesion be in the centre of the chiasma, interrupting the decussating optic fibres belonging to the nasal valves of both retinae, there is blindness in the outer half of each visual field (bi-temporal hemianopia). This sometimes occurs in acromegaly, and in the case of other tumours. The curious enlargement of the bones occurs from hypertrophy or over-activity of the pituitary gland. Hypersecretion of this gland appears to set free in the body certain abnormal substances whose action is to cause an extraordinary growth of bony tissue. The marked frequency with which the pituitary is involved in this disease lends weight to the view expressed by Woods Hutchinson 'that it is the growth centre, or at any rate the proportion regulator of the skeleton.' If the disease sets in at an age before the epiphyses have become joined, the bones grow enormously in all directions, and the result is gigantism; but if, as in the present case, the disease occurs after the union of the epiphyses, the overgrowth is confined to their ends, producing acromegaly."

Fortunately for its subjects, acromegaly is not in the general rule painful, though some cases are marked exceptions to this. Tramonti⁴ groups the different forms as follows:—(1) Osteo-articular pains; (2) various forms of neuralgia; (3) muscular pains, cramps; (4) tabetic-like crises; (5) acroparæsthesia.

It is not as a rule a chronic disease, but cases of rapid development and even rapid disappearance have been observed. Bleibtreu⁵ describes a case in which the pathological change was destruction and not hypertrophy. The case in question having succumbed to rapid pulmonary tuberculosis, a post-mortem examination revealed the complete destruction of the pituitary body, probably by a hæmorrhage. The sella turcica was occupied by a mass of yellow, newly-formed connective tissue, blood pigment, and some vestiges of glandular tissue. In this case, he remarks, there was a rapid onset and an equally rapid

disappearance; but to me it seems more feasible that some pathological change in connection with the tuberculosis caused the destruction of the enlarged pituitary, and not as Bleibtren suggests, "that acromegaly can be caused by destruction of that gland." On the basis of anatomical and embryological facts, most authors assume a close relationship between the hypophysis cerebri or anterior part of the pituitary body and the thyroid gland. This supposition is supported by the facts that hypertrophy of the hypophysis has been observed in animals after extirpation of the thyroid, also in men suffering from myxoedema. As far as I can ascertain, no further satisfactory explanation is forthcoming. Experiments have recently been made of injecting extract of the hypophysis into the circulation, resulting in a distinct action on the heart and blood-vessels, but no positive conclusion can be drawn. It is possible that the substances obtained by different methods from the gland are normally formed there and given off to the blood. But it is also possible that they represent products of decomposition, which are formed post-mortem only, in the methods of extraction.⁶

REFERENCES.—(1) Principles and Practice of Med. (Osler). (2) Differential Diagnoses, p. 672 (Gaille). (3) Diagnosis of Nervous Diseases (Purves Stewart). (4) The Polyclinic, Sept., 1906, page 325. (5) Munich Med. Woch., Oct. 25th, 1906. (6) Tigerstedt, "Physiology," page 367.

SOME NEW WORK IN 1907.

By G. MacLaurin, M.B., C.M. (Edin.), Hon. Surgeon,
Royal Prince Alfred Hospital, and the
Royal Hospital for Women, Sydney.

I VENTURE to set out here as briefly as possible the conclusions to which the past year's work has led me, with a criticism of new methods tried during that period.

Fractures.—Splints are now used as little as possible, and massage is begun when the fracture is reduced. Taking a fracture of both bones of the leg as typical, it is reduced under anæsthesia, every means being used to obtain accurate setting, including, of course, the X-rays. The leg is then put between sand-bags, and gently massaged for ten minutes. Every morning the house-surgeon examines it carefully, correcting any deformity which may have occurred, and then holds the limb in accurate position while it is massaged, the time of massage being gradually increased till at the end of a week it is getting the full half-hour,

with gentle strength. The patient is encouraged to use the muscles of the limb from the first, the only warning being that he is not to cause himself pain. At the end of three weeks it is put in a light Bavarian splint, and the patient is allowed up on crutches. This method is troublesome, and throws a great deal of extra work on to the house-surgeon; but the results are: no wasting of the limb, little callus, perfect position, rapid restoration of function. We have observed a well-marked Pott's fracture in a patient who was able to walk practically perfectly in eight weeks. No stiffness of a joint is seen, there are no adhesions, and no tendency to gangrene of the heel or involvement of nerves. I have had no case of non-union in any fracture thus treated; in fact, union occurs with remarkable rapidity.

Passive Congestion.—This method of treating inflammation was first proposed by the great German surgeon Bier about 12 years ago, but made no headway in Great Britain till last year, when a remarkable article in the *Edinburgh Medical Journal*, written by a medical student, called attention to the extraordinary perfection to which Bier had brought his results. I adopted it some six months ago, but unfortunately there have been few cases to which it was applicable. In one case of extremely virulent streptococcal infection of the arm the process stopped immediately we applied the passive congestion. A case of chronic synovitis of the knee seemed to derive some benefit. Two cases of very obstinate gonorrhoeal arthritis recovered rapidly under its influence. The tentative conclusions which appear to have been reached at home are that Bier's treatment is of great use in tubercular disease, of considerable benefit in acute infections, and practically a specific in gonorrhoeal arthritis. With these conclusions I am prepared to agree, because the method seems to be founded on accurate pathological reasoning, and so far as I have seen it does good.

Operative Technique.—We use masks, gloves and sleeves for all except the most trifling operations, and have done so since May, 1906. No suppuration has occurred in any clean wound thus treated last year. It seems likely that the use of these aseptic precautions will become general in the course of the next few years.

Peritonitis.—Since June, 1906, I have used the Fowler position and continuous injection of salt solution into the rectum constantly. The present writer used these methods more

than a hundred times during the past twelve months, and in his opinion they constitute the greatest advance made in surgery for many years. It is not too much to say that we now have the mastery over peritonitis arising from the colon bacillus or the staphylococcus albus, and how great a blessing that is everyone who remembers the conditions of even two years ago will admit. In streptococcal infections it appears to have little effect; as of old, these seem to die rapidly of overwhelming poisoning. I have used the continuous saline in all sorts of profound toxæmias, such as poisoned arms, puerperal septicæmia, and others, and also in severe hæmorrhage, and the results are satisfactory. There has been no mortality in 20 cases of diffuse peritonitis arising from ruptured appendices.

Drainage in Abdominal Operations.—This has been almost abandoned. I have never regretted not draining, whereas I have often been sorry for leaving in a tube. Several times I have operated on two cases of appendiceal abscess on the same day, draining one and not the other, the two being otherwise as like as possible. In every instance the undrained case left the hospital several weeks before the drained. At this moment there is a patient still draining in one of my wards, while one who was operated on the same day with a much worse condition has long left the hospital and is walking about perfectly well. One drained case suffered 13 weeks of dangerous illness, with fæcal and biliary fistulæ, pocketing, retro-colic cellulitis, and hectic, and I have since operated on her for ventral hernia; while a similar case, done on the same day and not drained, was out in three weeks.

Appendicitis.—The technique formerly described has not been altered; the smallest possible MacBurney incision; careful packing off the abdomen; removal of the appendix in all cases; manipulations to be done entirely by sense of touch, the wound not being opened up to look into it; invagination of the cæcum over the stump; two pints of salt solution in the abdomen; as little handling of the intestines as possible. There were 80 cases; one died on the last day of the year from post-operative intussusception. This rare if not unique complication is reported elsewhere.

Hernia.—The Bassini operation, with or without transplantation of the sac, still holds the field. There can be no doubt that Hamilton Russell's theory of the preformed

sac is essentially correct in most cases, and we in young cases now simply open up the canal, ligature off the sac high up inside the abdomen, and sew up the external oblique aponeurosis. I have seen no recurrence from any such operation. Strangulation appears to be rather rare nowadays; at any rate I saw only one last year, in an old umbilical hernia. This case recovered. The method adopted in umbilical hernia is to sew all the layers separately so as to overlap each for three-quarters of an inch. In femoral hernia the sac is simply tied off as high as possible, and the wound is closed. This seems to answer as well as any other method.

Laparotomy Incision.—Attempts have been made to limit the size of incision, and with practice it has been found possible to operate through a wound which would have appeared far too small two years ago. The advantages are—less shock, less risk of hernia, and less scar. The ordinary case of pyo-salpinx in a moderately thin woman is now done through a two and a-half inch incision. In 20 cases I used the transverse incision through skin fascia and aponeurosis, so placed that the superficial scar is hidden in the pubic hair. This is a satisfactory wound for non-septic cases; but it takes some minutes longer to make than the vertical incision, does not give sufficient room for the removal of large tumours, and opens up wide fascial planes, thus increasing the risk of sepsis. On the other hand, after six months it is practically invisible, and it is difficult to see how a hernia could form when it is employed.

Gastric Ulcer.—A reaction has very properly set in against the tendency to subject these cases to indiscriminate operation. There is a radical difference between gastric ulcer on the one hand, and gallstones, uterine fibroids and appendicitis on the other. In the latter class of case the operation is hardly at all dangerous in competent hands, though, of course, there must always be a slight unavoidable mortality, and the cure is certain. But the operation of gastro-enterostomy, even with the most experienced surgeons, is likely to have an appreciable, even though small, mortality, while we cannot certainly promise a cure. Again, medicine cannot cure a case of appendicitis with adhesions, a fibroid, or a thickened gall-bladder, but it can and does repeatedly cure gastric ulcers, or at any rate conditions which cannot be distinguished clinically from true ulcer. It seems to me that the function of surgery is to relieve those old cases of adhesions which make life a

burden to patients. I have operated on two in the last year, both of which are now practically well. Another class of case which appears to demand operation is that in which severe symptoms persist after long and skilful medical attendance. None of these came under my care last year, and I am inclined to think that their frequency is in inverse ratio to the care and patience of the attending physician. It may be thought that the view here stated is too conservative, and that the operation of gastro-enterostomy is not so serious as I suppose, and I am well aware of the long series of cases published by some surgeons with remarkably small mortality; but yet when a surgeon of the eminence of Kroenlein gives the mortality of operations on gastric ulcer as from eight to ten per cent., his statement must be respected. In matters of this sort one does well to note the statistics given by German surgeons, because of that habit of scepticism which has put Germany incontestably at the scientific head of the world.

Adherent Retroflexion.—The method of intra-abdominal shortening of the round ligaments by merely doubling them on themselves and sewing them together has not proved satisfactory in my hands, as several relapses occurred. This appeared to be due to the weight of the uterus pulling the round ligaments out from its attachment within the inguinal canal, where it is naturally somewhat thin; another method was therefore tried. The round ligament was doubled, and a small hole made in the parietal peritoneum just alongside the internal ring. The doubled round ligament was then drawn through this opening into the inguinal canal, and pulled across the abdomen beneath the aponeurosis, in front of the muscular belly of the rectus, till it reached the middle line, where it was sewn to the corresponding ligament from the opposite side. A threefold thickness of round ligament was thus secured throughout the whole of its course. This method holds the uterus forward in excellent position, but it is open to several objections. In one case the end of the ligament appeared to necrose, doubtless owing to the considerable strain imposed upon it; there was, however, no falling back of the uterus. The dragging of the ligament through the inguinal canal may possibly conduce to the formation of an inguinal hernia; and it remains to be seen whether the lateral pull of the ligaments across the abdominal wall will in any way

weaken the cicatrix at the point of union of the aponeurosis, and so allow the production of a ventral hernia. I therefore propose to attach the double ligament by sutures to Poupart's ligament at the entrance of the canal. By this means I hope we shall be able to preserve the sphincter action of the ring, while at the same time securely fixing the ligament and avoiding tension.

NOTES ON SOME KIDNEY CASES.

By A. J. H. Saw, M.B., B.S., M.D., Cantab., Perth, W.A.

I MUST ask your indulgence this evening, as the description of the cases I want to bring under your notice must be somewhat scrappy and incomplete, as unfortunately the pressure of work in general practice does not allow of systematic note-taking, and the class of cases meets with but scanty description in the text-books. I do not think I can do better than briefly relate the leading features in the first case that came under my notice, and then allude to other somewhat similar cases.

The first case, Mr. D. S., aged 37, about seven years ago presented himself with the following history:—He was seized with frequent and painful micturition; the urine presented the signs of acute cystitis, and contained a good deal of blood. Shortly afterwards he complained of pain in both loins of an acute nature. The temperature ranged between 102° and 103°; the man looked extremely ill. The urine, which was acid, contained a large quantity of pus and a fair amount of albumen. As the bladder symptoms were urgent, a suprapubic cystotomy was done; but the bladder, excepting intense injection, showed no abnormal signs. The cystotomy relieved the bladder symptoms, and the patient slowly mended; the wound healed, but the urine still remaining acid, contained pus and albumen in fair quantities. Further examination of the urine showed it was swarming with a variety of the colon B. group, the *B. lactis aerogenes capsulatus*. The bladder was irrigated for a long period; most of the urinary antiseptics were exhibited in turn, but they had very little influence over the presence of the bacilli, except to somewhat diminish their numbers. The patient's condition became chronic, though his health was sufficiently good to allow him to lead an active life, the symptoms of cystitis having quite subsided, but the condition of the urine was as follows:—Acid, good sp. gr., slightly

opalescent, small quantity of pus, some renal casts, but swarming with the *B. lactis ærogenes*. The amount of albumen would vary from about $\frac{1}{8}$ to $\frac{1}{4}$ on standing after boiling. After some years the circulatory system showed signs of involvement, the pulse tension got high and the vessels thickened, and signs of cardiac hypertrophy with a markedly accentuated second aortic sound. Retinal changes ended with hæmorrhage, intense headache, finally uræmic asthma; and convulsions and coma closed the scene. This was to me an unique case, for I saw a healthy man without any previous urinary or venereal trouble attacked by this organism, causing in turn acute cystitis, an ascending pyelitis, a pyelo-nephritis, and then passing on to an ordinary Bright's disease, and death some five or six years after the incidence.

The next case was Mrs. E. R., aged 26, who came under my care in December, 1905. Her history was as follows:—She had been married three years and had two children. During the first pregnancy she had cystitis followed by left lumbar pain. After the confinement she got better, but during a second pregnancy the symptoms recurred in a more severe form, and did not abate after confinement. She was subject to attacks of left renal pain, and had always frequency and pain on micturition.

On examination the urine was ammoniacal, contained a good deal of pus and a lot of epithelium. The left ureter was distinctly thickened per vagina. Stone in the left kidney was diagnosed, and on operation the pelvis of the left kidney was found to contain a lot of soft putty-like calculus, which was removed with a scoop. The wound healed up quickly, but the symptoms were but little alleviated.

A bacteriological examination disclosed the presence of a very minute bacillus in enormous numbers. As I had, during a visit to London, heard Sir Almroth Wright lecture on vaccines and opsonins at St. Mary's Hospital, I thought this would be a suitable case for the treatment. Unfortunately at that time great pressure of work at the Central Board prevented the bacteriologist undertaking the work necessary, and as the other kidney showed signs of infection, I suggested the advisability of the patient putting herself under the care of Mr. Hurry Fenwick, of London, which was accordingly done. He found both kidneys affected, with pyelitis and

slight interstitial nephritis, and the presence of the small bacillus which we had noted here.

Under prolonged treatment by vaccines a very considerable benefit resulted, and after 12 months the patient returned here very much improved in health, though still having pyelitis of the left kidney. The opsonic treatment is still being carried out. I may say that in this case after some four months' treatment by vaccines so little progress had been made that Mr. Fenwick urged the removal of the left kidney; but the patient preferred to go on with the vaccine treatment, with the result that shortly after considerable improvement ensued.

The third case is that of a lady, *æt.* 38, who consulted me 12 months ago for slight cystitis. The usual remedies were exhibited without any improvement, and a bacteriological examination revealed the presence of a variety of the *B. coli*. The patient was kept in bed, and bladder washed out twice daily and an ounce of a solution of argyrol 10 per cent. left in the bladder. The kidneys then began to show signs of the infection, and Dr. Cleland kindly undertook the preparation of a vaccine, which was accordingly tried, with distinct benefit, although owing to one cause and another, the injections have not been given as often as was necessary.

The mode of infection in these cases is not clear. In none of them was there any history of gonorrhœa, nor in the third case was there any passage of a catheter or sound. Invasion from the blood stream is possible, and I believe direct infection by the passage of the colon *B.* from the rectum or sigmoid flexure is maintained by some authorities. In spite of every care, cystitis is often set up by the passage of a catheter after an operation, and I have come to avoid the passage of a catheter as much as possible. Should it be imperative, too great care cannot be exercised in the disinfection of the catheter and of the meatus, and in the selection of a suitable lubricant.

I have not had time to touch on that important group of cases in which pyelitis and pyelo-nephritis occur during pregnancy. My own impression is that they have a relationship with the cases I have narrated above; and in view of the frequency of cystitis during the earlier months of pregnancy, I think it is not at all improbable that an ascending infection of the kidney occurs via the ureter.

(Read before the Western Australian Branch of the British Medical Association.)

TWO CASES OF LARGE PELVIC HYDATID, ONE IN A MALE, THE OTHER IN A FEMALE PATIENT.—OPERATIONS AND RECOVERY.

By F. J. T. Sawkins, M.B., Ch.M., Hon. Surgeon
Lewisham Hospital, Sydney.

PELVIC hydatids are of sufficiently rare occurrence to be worth recording when they have become large enough to cause definite and characteristic symptoms. At present I have under treatment an example in each sex of a pelvic hydatid which necessitated operative interference.

The female, a young multipara, living on a sheep station, aborted two years ago at seven months, when a tumour was detected in the lower part of the abdomen. She again became pregnant and aborted at the fifth month, the tumour being now very much larger. Her medical attendant tapped it on two occasions and drew off ten pints of greenish fluid.

When I saw her on October 15th the tumour occupied the lower abdomen, rising as high as the umbilicus, was evidently of fluid contents, and p.v. was found to be pushing the uterus upwards and to the right. Her general condition was, naturally after what she had gone through, one of extreme weakness. The diagnosis rested between ovarian and hydatid cyst. I opened her in the middle line and soon found that it was a huge hydatid cyst that had displaced upwards all the pelvic viscera except the rectum, and was practically extra-peritoneal. I therefore refrained from attempting to strip, opened the cyst midway between umbilicus and pubes, and made a counter incision in the right flank. The cyst contained a small bucketful of dark greenish fluid, with shreds of dead hydatid cyst wall, and much yellowish putty-like detritus at the bottom of Douglas' pouch. Improvement was continuous, but as there seemed some difficulty in draining the lower part of the cyst, I later opened through the vaginal roof and left in a gaspipe rubber tube. She has now gone home after making a practically uninterrupted recovery.

The second case, male, a drover, 63 years of age, consulted me because of inability to pass his urine. On examination I found a bladder almost to the umbilicus, which he had been unable to empty for three days, though urine was constantly running away. A catheter (No. 8) was easily passed, but a *very much greater length* of it disappeared before the urine began to flow than happens in the

ordinary case of distended bladder from stricture. I remembered having had two similar experiences some 14 years ago, in both cases the cause being a pelvic hydatid. I therefore, after drawing off about two pints of dark turbid urine, examined p.r. and found a large cystic tumour bulging into the rectum, and, bimanually, easily felt above the pubes. There were also some smaller cysts in the liver. After a few days' rest in bed, with catheterisation and treatment till his urine had improved, I sent him to hospital for operation.

Through a curved incision from the central point of the perinæum round into the base of the left ischio-rectal fossa, I was easily able to separate urethra, prostate, and bladder from the anterior wall of the rectum. Then with a long sponge forceps, guarded by wrapping the blades in cotton wool, I firmly grasped and drew down the anterior wall of the rectum, and so brought the base of the cyst within safe working distance. A long forceps was plunged into the cyst, and the blades having been opened wide, it was then withdrawn. This was accompanied by a gush of fluid and daughter-cysts. A wide rubber tube, 8 inches long, was introduced and secured by a perineal stitch. The small perineal wound was plugged round the tube with gauze. There had been practically no bleeding and not one vessel needed tying.

The urine had for some days to be drawn off every six hours, and the bladder washed out daily. He had lost control of the rectum temporarily, but in a fortnight's time was able to control both urine and fæces. The perineal tube had then to be replaced by a narrower one. The anterior wall of the rectum broke down about six inches from the anus, where the cyst wall had thinned out the coats. This had naturally helped on the relief of symptoms, for he had passed quantities of daughter-cysts per anum on several occasions. He is now—16 days after operation—able to walk about, is rapidly regaining his normal health, and has full control of both bladder and rectum.

According to Thomas, in 200 cases of hydatid disease only 1 per cent. were pelvic demanding operative measures.

Pelvic hydatids arise in two ways: Secondly by transplantation of daughter-cysts from some other site, after rupture of a live mother-cyst. They are then often multiple, and rarely attain great size. They probably more often develop primarily nowadays,

since the tapping of the hydatid cysts has very properly been discarded as an irrational and dangerous method of treatment. The embryo—there being as a rule only one—is arrested and develops in one of the pelvic organs, and occasionally attains considerable size.

Females are more frequently the subjects of pelvic hydatid than males, probably because there are more pelvic organs to be attacked, and possibly because of the greater blood supply to the essential organs at various periods. The operative treatment by the perineal route is much easier in women than in men, the vaginal roof being in apposition with the most dependent part of the cyst.

In the male the primary cysts arise—as I had the opportunity of demonstrating by dissecting of one of the cases I had previously seen—in the connective tissue between the muscular coat of the lower part of the bladder and the sheath of recto-vesical fascia. "This fascia, besides enclosing the prostate and lower part of the bladder, forms a special sheath for the vesiculæ and vasa deferentia; hence the gradual enlargement of the cyst separates the fascia from the bladder, and thus detaches the vasa and vesiculæ, which henceforth may become incorporated in the wall of the cyst." (Targett, *B.M.J.*, July 29, 1893.) The growing tumour also partly pushes and partly drags the bladder upwards, and so gradually elongates and narrows the urethra that the time comes when the dislocated and hampered bladder can no longer void its contents. Hence the abnormal length of catheter which has to be passed before urine flows—a diagnostic sign of much value in these cases.

Mr. Reginald Harrison in 1895 had a very similar case, the details of which he published in booklet form, together with references to the two cases which I had reported in the *Australian Medical Gazette*, November, 1893.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF LATE RECURRENCE OF SARCOMA.

THE question as to when a patient who has once had sarcoma is free from the danger of return after removal is a very interesting one. Mrs. McK., æt. 43, came complaining of loss of flesh, cough, shortness of breath, and expectation of a little blood occasionally. On examination I found she had absolute dulness from the apex of her right lung down to about

the sixth rib. I expressed the opinion that she had a hydatid, and advised operation. Just as she was leaving, she said the late Dr. Way had amputated her right arm 12½ years ago for a "bleeding sarcoma." There had never been any sign of recurrence in the stump. I thought the length of time which had elapsed since the amputation almost precluded the possibility that her complaint was sarcomatous. Dr. J. C. Verco, who also examined her, came to the same conclusion. Upon exposing the lung, however, it was found to be as hard as wood, and a hollow needle introduced in several directions failed to strike hydatid fluid. The patient gradually got weaker, and died of hæmoptysis and exhaustion three months later. The whole of the upper lobe of her right lung was found at the autopsy to be occupied by a melanotic sarcoma.

C. E. TODD,

M.D. (Brux.), M.R.C.S., L.R.C.P.

42 Victoria Square, Adelaide.

THE OCCURRENCE OF FAVUS IN MICE (*MUS MUSCULUS*) IN WESTERN AUSTRALIA.

RECENTLY Dr. Hickinbotham, of Carnarvon, a coastal seaport some 600 miles or so north of Perth, submitted to me a mouse caught there for examination. This animal was covered on the head, ears and face with peculiar yellowish saucer-shaped crusts, while smaller ones were present on the legs and round the anus. On making microscopical sections of the tissue numerous hyphæ, laden with irregular-shaped spores, were met with in the superficial parts, while the tissues below were infiltrated by a few plasma cells. The condition is undoubtedly favus, and is specially interesting as I am not aware of this disease being so far recorded from Australia, though doubtless cases have been met with. In countries where favus exists, not only human beings, but also cats and mice are known to be affected, and it is, therefore, probably only a matter of time before local cats acquire the disease from these infected mice, and children from the cats. As this is a difficult ailment to eradicate, those living in districts where the mice show any suspicious signs of having favus should be on their guard and warn mothers of the possibility.

J. BURTON CLELAND, M.D. (Syd.).

Government Pathologist, Perth, W.A.

Dr. Harvey Sutton, the second Victorian Rhodes scholar sent to Oxford, has succeeded in obtaining the degree of B.Sc. at that university for a thesis on "Heat Apoplexy."

REVIEW AND NOTICES OF BOOKS.

NORMAL HISTOLOGY AND MICROSCOPICAL ANATOMY. By Jeremiah S. Ferguson, M.Sc., M.D. Octavo, pp. xix. + 738, with 462 illustrations in the text, some in colour. New York and London: D. Appleton & Co. Sydney: Angus and Robertson. 1905.

This is an excellent text-book. One is at first surprised that the author should describe the field of normal histology as "inadequately covered," but when one considers that the work of the histological laboratory has developed to an importance which bids fair to rival that of the dissecting-room, one may perhaps admit the justice of the description. A careful perusal of the work convinces us that the author has made a very successful attempt to remedy this inadequacy. Perhaps influenced by the ideas of Professor Adami (whose name, however, does not appear in the extensive bibliography appended to the book), he includes "endothelia," in spite of their *mesoblastic* origin, in the *epiblastic* "epithelia," and so brings such structures as the peritoneum into the closest association with the mucosa of the mouth under the name of "squamous epithelium." In spite of the superficial resemblance of these membranes this association seems altogether too incongruous.

Special attention is given to organs which serve as a field for the specialist in medicine, e.g., the female genitalia, and the brain and spinal cord. The descriptions of the syncytium and islands of Langerhans, of the chorionic villi, and of the germinal centres of lymph nodes will be specially useful to those who examine tissues removed at operations, but it is unfortunate that these structures are less generously illustrated than most others. Frequently neglected subjects, e.g., the parathyroid, coccygeal and carotid bodies, receive suitable attention; and recent work such as that on the hemolymph glands has not been overlooked.

The illustrations, so important a part of a book on histology, are admirable and copious. They consist partly of drawings by the author of "actual fields in actual preparations," and partly of microphotographs. The former are remarkable for their softness, clearness, and artistic merit, a few are coloured. The latter are very good, but are perhaps a little hard, and in the case of high power pictures, a trifle lacking in definition. In all the magnification is precisely stated. There are, in addition, reproductions of a few very valuable illustrations, notably of reconstructions and of corrosion models, and a few diagrams.

There are appended a useful chapter on technique, an up-to-date bibliography, and an index. The publishers have done their part of the work well.

A TEXT-BOOK OF HISTOLOGY. By Frederick R. Bailey, A.M., M.D. Octavo, pp. xiv. + 481, with 286 illustrations. New York: Wm. Wood & Co. 1904. Sydney: L. Bruck.

This book is intended for use in connection with practical laboratory instruction and classroom teaching. No attempt has been made to render it sufficiently complete for reference purposes, the text being concise so as to concentrate the attention to essentials. In addition to the introductory chapters on technique, there are appended to the description of each tissue and organ practical directions for the preparation of specimens. All the illustrations are good, and, a special paper being

employed, all are excellently produced; a few are original, but the majority are reproductions of well-known drawings from the best sources. There are a sufficiently extensive bibliography and a good index. The author may be congratulated on having achieved his object.

THE ESSENTIALS OF HISTOLOGY, descriptive and practical, for the use of students. By E. A. Schäfer, LL.D., Sc.D., F.R.S., Professor of Physiology in the University of Edinburgh, formerly Jodrell Professor of Physiology in University College, London. Seventh edition. Octavo, pp. xi. + 507, with 553 illustrations, some of which are coloured. London: Longmans, Green & Co. 1907. Price, 10s 6d net.

In these days of excellent medical publications from America, it is gratifying to find that, in spite of the recent appearance of more imposing American works, this unpretentious little volume maintains its place as the best book on histology readily accessible to the English reader. While intended mainly as a practical guide for the laboratory, it is nevertheless sufficiently complete to supply all that the ordinary student can desire in a systematic text-book.

In the new edition the text has been enlarged (especially that on the nervous system), and a number of illustrations have been added from different sources. A new and pleasing feature is the printing of many of these in colour. In most respects the illustrations are excellent. It is, therefore, all the more to be regretted that in very many instances the magnification is not stated.

In this, as in most other books on histology in general, the blood is dealt with very scantily. Considering the place of blood examination in modern medicine, an accurate and detailed knowledge of blood cells is of more importance to the practitioner than is that of any other tissue or organ. One is therefore annoyed at being wrongly told that basophiles "are rarely if ever found in normal blood (adult)," and that "the phagocytic properties of the leucocytes become especially developed as the result of the action upon the bacteria of certain chemical substances, which . . . are termed opsonins." Wright himself has expressed the opinion that there are no such substances as opsonins, though blood serum has opsonic properties.

ANTISEPTIC METHODS FOR SURGICAL NURSES AND DRESSERS. By Harold Upcott, F.R.C.S. Pages viii and 51; illustrations, 10. Crown 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 2s 6d net.

The chief aim of the author has been to adapt this book to the needs of private surgical nursing homes. The dresser also will find some assistance in the rational application of his knowledge when commencing his surgical work. The work is divided into six chapters—(1) Cause of Wound Infection; (2) Methods of Destroying Organisms; (3) Sources of Infection: Patient, Surgeon and Surroundings; (4) Special Methods of Treating Sources of Infection; (5) Duties of Nurses and other Assistants at a Surgical Operation; (6) Wound Dressing. This little book may be recommended as practical and very thorough in its methods of asepsis, and should prove of value to those for whom it has been written.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH APRIL, 1908.

WHAT IS A HOSPITAL ?

THE various questions of hospital management and hospital abuse have become in recent years very prominent matters for discussion in all parts of the world. In England there have been two hospital conferences, consisting of meetings of delegates from various metropolitan and country hospitals, at which many matters of vital importance to the public and the profession have been discussed. Then again, at various times and at various places difficulties have arisen between the medical staffs and the boards of management, and "hospitals" have been even boycotted by the profession. In its work in dealing with various ethical questions in hospital matters the Central Ethical Committee of the British Medical Association in London has found some difficulty over the definition of the term "hospital." This word has, it is said, been applied to institutions for the treatment of disease under such conditions as to be misleading to the public and injurious to the profession. And in certain instances medical practitioners have been responsible for such improper use of the term or have been connected with institutions to which the term has been improperly applied. Acting upon the instruction of the annual representative meeting of the Association held at Exeter last year, the Ethical Committee has drawn up a definition of the word hospital for the consideration of the Divisions before committing it to the Representative Meeting at Sheffield this year. The committee suggests that the term "hospital" should not be applied to an institution for the treatment of

disease which does not possess all the following characters :—(a) That the institution in question receives necessitous patients and is maintained wholly or partially by public funds or charitable contributions ; (b) that the control, including the appointment of the staff, is in the hands of medical and lay persons appointed by, or responsible to, those who provide the funds ; (c) that the institution is not established or conducted for the pecuniary profit or personal gain of the body or persons who control it. The Divisions are requested to consider this definition, not as representing the essential characters of an ideal hospital, but with such reference to the point indicated, viz., the assistance of the Ethical Committees in advising members of the Association as to their relations with institutions concerning which there may be any doubt.

With these limitations in view, we suppose that the above definition is as fair and comprehensive as one could wish. But if it be adopted it will be incorrect in future to speak of private "hospitals," for institutions which are at present called private hospitals do not fulfil these conditions ; and we presume that the Ethical Committee is aiming at the suppression of some so-called private "hospitals" which have an unsavoury reputation, or at any rate of preventing any misconception in the minds of the general public as to the support to be accorded to these institutions.

As there is to be a general discussion on "Hospitals" at the meeting of the Australasian Medical Congress in Melbourne in October next, it is probable that this aspect of the question will be considered ; and we think that if such an authoritative definition of the word "hospital" could be decided upon it might be of some use as a lever to secure necessary reform in some institutions which are now called "hospitals."

THE CHEMICAL CONTROL OF THE BODY.

UNDER the auspices of the Harvey Society of New York, Dr. E. H. STARLING, Professor of Physiology in the University College, London, delivered a lecture at the Academy of Medicine, on the subject of "The Chemical Control of the Body," and no one, perhaps, was better fitted to deal with such a subject. Several years ago PAWLOW published his researches on the physiology of digestion, in which he pointed out that, in the digestion of food, the various digestive juices must be poured out in proportion to the amount of food to be digested, and at the time when the food is present in the organ; that when experimentally some acid chyme was introduced into the duodenum there was a flow of pancreatic juice, and it was probable that this action was a nervous reflex direct from the duodenum to the pancreas. This subject was then again studied experimentally by Professors STARLING and BAYLIS, and they proved that this phenomenon took place when all nerve connections between the pancreas and duodenum were severed and the blood-vessels remained as the only bond of union between these two organs. They concluded therefore that the stimulus which caused the secretion of the pancreatic juice was a chemical substance which travelled from the duodenum to the pancreas by way of the blood-vessels. Further investigations showed that when the cells of the mucous membrane of the upper part of the duodenum were scraped off, and this mass boiled with hydrochloric acid, there resulted a substance which, when injected into the pancreatic vessels, at once caused the secretion of the pancreatic juice. This substance which, owing to its being highly oxidisable, has not been obtained in a pure form, presented some peculiarities inasmuch as it withstood boiling, was soluble in alcohol, and was readily diffus-

ible. This substance is one of a number of similar bodies which STARLING has discovered, and which he names collectively "hormones." In the alimentary tract there is an economy of mechanism, for the "hormone" just referred to acted upon three organs at once—the liver, pancreas and intestine—but it had no influence on the stomach or mouth. This hormone action thus causes an accurate co-ordination between the amount of food to be digested and the amount of digestive juice to be passed out. Hormone actions are not confined to the alimentary tract. Contracting muscle, for example, is always supplied with just the amount of oxygen needed for its work. This is simply regulated through respiratory centre, for as soon as the contracting muscle begins to send into the bloodstream more carbon dioxide than before, the respiratory centre begins to signal to the respiratory apparatus to do more work, thus at once sending more oxygen to the working muscle. Thus carbon dioxide is a chemical substance which exercises control over the respiratory centre, and is a typical "hormone" in Professor STARLING's sense. Similarly the active constituents in the secretions from the suprarenal bodies, the pituitary body, and the thyroid gland, inasmuch as they exercise chemical control in the body, are all to be regarded as hormones. Similarly the flow of milk which ensues two or three days after confinement is not a pure reflex action but a true hormone action, and this Professor STARLING has proved by experimenting on rabbits.

It has thus been shown how large a place in the economy of the body is occupied by chemical control of the functions of different organs, and a due recognition of this principle will probably lead to beneficial practical results in the near future. We try to influence the morbid condition of the body by drugs, of whose action we often know very

little, and our drugging is therefore largely empirical. But gradually the use of medicines is being placed on a more scientific basis, and work along the lines of research which have been laid down by Professor STARLING must lead to a more satisfactory knowledge of how to exert a chemical control over the morbid processes of the body.

THE MONTH.

The Compulsory Notification of Pulmonary Tuberculosis.

Dr. W. G. Armstrong, the Sydney City Health Officer, has on several occasions referred to the extremely satisfactory way in which the compulsory notification of pulmonary tuberculosis within the city boundaries has been working. No friction has so far resulted, and no undue hardships have pressed on the unfortunate sufferers. In these statements we have proof of the practicability of this procedure, and to make the fight against tuberculosis still more effective it is necessary that the principle of compulsory notification should be extended first to the suburban areas and then to the whole State. We are glad to note that the Parramatta council has resolved that application be made to the Department of Public Health to have this disease included in the schedule of notifiable diseases under the provisions of the Public Health Act, within the suburban area, and that all councils situate within that area be asked to co-operate with a view to bringing the matter to a successful issue. Sir Philip Sydney Jones, who has just returned from a visit to the old world, during which he paid considerable attention to the present state of medical opinion on the prevention and treatment of tuberculosis, states that in Europe there is still a good deal of diversity of opinion as to the desirability of making notification compulsory. We take credit to ourselves very often that we are ahead of the old country in some things, and we hope that before long we shall be able to show that compulsory notification is not only practicable but a necessary part of the armament for fighting pulmonary tuberculosis.

An After-Care Association for Consumptives.

The annual meeting of the Queen Victoria Homes for Consumptives in New South Wales was held last month, and the reports showed

the good work which is being accomplished by these agencies. We regret to note that no further steps appear to have been taken towards establishing an after-care association. In England there are several of these societies, the object of which is, of course, to assist the patients who have been discharged from the sanatoria to secure suitable employment in more healthy surroundings. In this country after a patient has spent, say, three to six months in one of the sanatoria in the country he is generally obliged to return to the city and take up his old work, which frequently means living in a close, confined neighbourhood and working under conditions most unfavourable for the maintenance of his "cured" or "improved" condition of health. The result is that after a time many of these patients break down again with a recrudescence of their disease, and, owing to the limited accommodation at the sanatoria, their chances of re-admission are slender and their hopes of recovery correspondingly reduced. The great benefits which an after-care association would confer on these unfortunate sufferers are obvious, and we hope the matter will engage the attention of the committee of the Queen Victoria Home for Consumptives.

The Macedon Sanatorium, Victoria.

Some unfavourable comments as to the management of this institution have recently been made in the daily press, and in consequence of these the Inspector of Charities was requested to visit and report. This has now been submitted to the Premier, Mr. Bent, and he insists upon the drastic reforms suggested by the Inspector being carried out as a condition for the continuance of the Government grant. It is urged that:—"The paying patients should be abolished, and the Government form of ticket (which allows of no distinction of any kind in the treatment of patients) should be introduced. Under this ticket persons in a position to pay private fees would be refused admission, and those in a position to contribute according to their means would be required to do so. There would also be no preference as regards admission. The rules of the institution should be kept separate from the application form, and the conditions requiring patients to obtain a guarantee for the payment of travelling expenses and to attend evening prayers should be abolished. The name Victoria Sanatorium for Consumptives is a misnomer, and should be altered to Macedon Sanatorium, in

view of the fact that the Government has established a much larger home for consumptives at Green Vale. Should objection be taken to these terms, the maintenance grant should be withheld. The institution could then as a private concern cater for those who are able to pay for their own support, the destitute cases, of which there are not many at Macedon, being looked after in the sanatoria provided by the Government." It appears to us that these reforms are only reasonable, and we hope that the committee will see their way to adopt them, and not imperil the usefulness of the institution.

Clinical Study at the Melbourne Hospital.

It is a matter for regret that there is not a closer bond of union between the Melbourne Medical School and the Melbourne Hospitals which are recognised as clinical schools by the University. An illustration of this want of co-operation was furnished recently at a meeting of the Melbourne Hospital committee, when a letter was read which had been received from the Registrar of the University, stating "that at a meeting of the Faculty of Medicine held on February 27th attention was called to the case of a student who, while doing no regular course at the University, had attended clinical instruction at the Melbourne Hospital and Women's Hospital as a student of medicine. The faculty resolved to suggest to the committees of management of hospitals recognised as clinical schools by the University that in future no student should be admitted to the practice of the hospitals unless certified by the Registrar of the University or the Registrar of the Dental College to be a student doing a regular course of medicine or dentistry." The suggestion provoked the opposition of several members, who held that as long as the clinical scholars were reputable and paid their fees the instruction should be given to them, and the letter was merely received. We are unaware of the special reasons which were adduced in support of the proposition of the faculty, but it appears unreasonable that the University should attempt to force the hospitals to close their doors against any reputable student who might desire to carry on some special research. These hospitals are full of most valuable material for special research in various directions, and every facility should be granted to students desirous of extending their knowledge and experience, without compelling them to enter as students for the medical degree of the Melbourne University.

The Treatment of Inebriety in Victoria.

At the close of last year the inebriate institution at Lara had been in operation for six months, and a report on the general working of it has been furnished by Dr. Ernest Jones, the Inspector-General of the Insane. From its opening on July 1st till the end of last year 26 patients were received. Of these, 13 were allowed to leave the institution on trial, 3 were discharged, and 1 had to be returned to the institution relapsed. The payments were—2 patients at £2 2s per week, 3 at £1 10s, 9 at £1, 1 at 12s 6d, 3 at 10s, 1 at 5s, 1 at 2s 6d, and 6 were free. Work of a light congenial nature was essential, and the amusements provided included tennis, cricket, quoits, fishing, billiards, chess and cards, while there was a library containing good classical and modern literature. Dr. Godfrey, the visiting medical officer, has also furnished some details of the work. Of the 26 cases admitted, 15 had been treated at other institutions, and of these, 4 showed definite mental enfeeblement as apart from alcoholism. Actually not more than 10 of the cases admitted held out any reasonable hope of recovery. Of these 10, 2 had been discharged and 2 allowed out on probation. The material with which the institution had been called upon to deal was of a most discouraging character, but it was evident that the institution would justify its existence. It should be recognised that the institution was not a reformatory or a place for punishing wilfully vicious alcoholics. The cases with which the institution was fitted to deal were those who were anxious for their recovery and ready to carry out the treatment cheerfully. In future three institutions would be required—one for purely voluntary cases of a reputable character, for which Lara was suited; one for compulsory cases, and one for irreclaimable vagrants. As to the causes of the inebriety of the 26 patients admitted, it is stated that the failing of 15 of them is ascribed to sociability. Three ascribe their trouble to the influence of their occupation, two being publicans and one a commercial traveller. The other causes were:—Domestic trouble, 2; insomnia, 2; ill health, 2; overwork, 1; financial worry, 1.

KYOOMBA SANATORIUM, near Stanthorpe, Queensland, for the open-air treatment of tuberculosis. This sanatorium stands in its own grounds of 180 acres, 3000 feet above sea level, and is on granite formation. The climate is dry and bracing, and is unrivalled for the treatment of tuberculosis. Under medical supervision. Opsonic treatment. Apply to Dr. Helen Shaw.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

THE annual meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on March 27th. Dr. G. H. Abbott occupied the chair. There were between 40 and 50 members present.

The minutes of the meeting held last December were read and confirmed.

The HON. SECRETARY announced the election of the following new members:—Drs. Martin Magill, Henry P. Blaney, N. W. Hansard, Hugo Flecker, R. Perkins, C. Shepherd, R. Sproule, P. F. Manchester, J. F. Walton, H. T. C. MacCulloch, Charles St. Leger Willis, J. G. Hill, J. G. Gilchrist, A. C. Cahill, K. R. Georgs, O. E. B. Withers, Iza Coghlan, A. H. Moseley, E. P. Sinclair; and announced the following applications for membership:—Dr. C. E. Flashman, Tenterfield; Dr. T. Linn, O'Reilly, Sydney; Dr. James F. Watson, Australian Club; Dr. R. S. E. Todd, University Club; Dr. Oliver Latham, Parramatta.

The report of the Council and the Hon. Treasurer's statement were taken as read, and their adoption was moved by the Hon. Treasurer, who made some comments on the state of the *Gazette* finances. Seconded and carried.

REPORT OF THE COUNCIL FOR THE YEAR ENDING 31ST MARCH, 1908.

The Council congratulates the members of the Branch on another year of steady progress.

Membership.—The number of members on the register is 606, an increase of 64 since the date of the last annual report. The new members admitted during the year number 75, which is the largest number of admissions in any one year since the Branch was formed.

Meetings.—During the year, in addition to the annual meeting, nine ordinary and two extraordinary meetings of the Branch have been held. This year has also seen the introduction of clinical evenings, of which two were provided. The Council has held 13 meetings, and in addition many meetings of sub-committees appointed for special purposes have been held. The attendance of members at the meetings of the Branch has been well maintained. The papers and the exhibits presented at the meetings of the Branch and the clinical evenings were, in many instances, of high scientific interest, and all of them of a useful and instructive character.

Officers.—At its first meeting the Council appointed Dr. W. H. Crago to be hon. treasurer, and Dr. R. H. Todd, hon. secretary. Drs. G. E. Rennie and W. H. Crago were re-elected editor and manager respectively of the *A.M.G.*

Representation of the Branch.—Dr. G. E. Twynam and Dr. C. J. Martin continued to represent the Branch on the Central Council, having been appointed for three years in 1907. Dr. Ralph Worrall was appointed the representative of the Branch at the annual representative meeting of the Association. The Council thanks these gentlemen on behalf of the Branch for their kindness in attending to the duties of their respective offices and worthily representing the Branch. At the request of the President-elect, Sir Philip Sydney Jones and Drs. Clubbe and Worrall were nominated as

delegates from the New South Wales Branch to the annual meeting at Exeter.

Organisation.—In consequence of the general recognition of the unsuitableness to local requirements of the mode provided by the articles and by-laws of the British Medical Association for grouping members in divisions, no steps have been taken to institute divisions, in furtherance of the provisional scheme submitted for the approval of the members in 1906. On the other hand, the Council, with a view of organising the members for local purposes, has encouraged the formation of local medical associations, and at this meeting submits for the approval of the Branch a proposal for the affiliation to the Branch of groups of members organised into local associations. It is hoped that if the proposal is acceptable the grouping of members into organised bodies will follow in every part of the State, where the members are not too far separated from one another to enable them to meet periodically. The Council thinks that if members in their own districts are enabled to exercise control of local affairs, especially in respect of the conduct of individual practitioners and the relations of lodges with their medical officers, and public hospitals with their medical officers, the influence of the Association will be more directly and effectively applied and more strongly felt both within and outside the profession; and at the same time the Council thinks that it will be better informed in regard to matters in which it may think fit from time to time to take action. Already there are in existence eight local medical associations, viz., the Metropolitan, the Northern Suburbs, the Eastern Suburbs, the Western Suburbs, the Balmain, the Newcastle, the Western, and the Border Medical Associations. All of these are doing useful work for their members. The Council trusts that they will see their way henceforth to do their work under the auspices of the British Medical Association instead of independently of it and of one another, as they have for the most part done hitherto. The Council thinks that under the principle of affiliation of local medical associations to the Branch the members will have a more effective system of local organisation than could be secured by the application, at the present time, in New South Wales of the mode of organisation in multiple divisions provided by the articles and by-laws.

Friendly Societies.—At the time of the last annual meeting a form of agreement between medical officers and friendly society had been approved at a conference between delegates from the Council and the Friendly Societies' Association of New South Wales, and both parties in the conference had undertaken to do their utmost to procure its adoption by their respective Associations. On May 10th the form of agreement was submitted to a largely-attended meeting of the Branch, and unanimously approved. During the year in a number of instances where new agreements between lodges and their medical officers were made, this form has been found of service to both parties, and in some instances it has been adopted practically in its entirety. Medical officers of lodges have reported in two cases that the clause in the agreement providing for an income limit for members entitled to medical benefits, upon being properly understood, has been readily accepted by the lodges. The Friendly Societies' Association of New South Wales has been active in its preparation to submit the form of agreement to the affiliated societies at the annual sessions of the Orders this year.

Draft Charter.—The Organisation Committee of the Central Council sought the opinion of the Branch on certain of the clauses of the proposed charter for the

Association, prior to its submission to the special representative meeting. The draft of the proposed charter was therefore carefully studied by the Council, particularly from the point of view of the New South Wales Branch, and suggestions for its alterations were made. The draft submitted to the special representative meeting was modified in some particulars which accorded with the views expressed by the Council. Subsequently to the special representative meeting held for the consideration of the draft charter, the Central Council, acting under its powers, referred to the Branches throughout the world certain resolutions of the special representative meeting in the form of a referendum. At a special meeting of the Branch held on November 22nd, these resolutions were considered, and the voting in respect of each of them was almost unanimously in favour of the views of the Central Council, as opposed to those of the special representative meeting.

Emergency Fund.—In accordance with a resolution of the Branch passed on June 28th, the Council has been active in instituting an emergency fund, on the lines of that created in the United Kingdom under the auspices of the Association. For such a fund to be of use to the profession it is essential that a considerable amount of money must be accumulated before it is operated upon. The rules adopted for the regulation of the fund provide that this amount shall be £1500, and the committee of the fund has undertaken to endeavour to collect this sum before January 1st, 1909. An agent has been appointed by the committee to visit members of the Branch, explain the objects of the fund, and receive contributions and subscriptions. The Council appeals to each member to consider carefully his obligations to himself and the profession at large in regard to this fund, and to remember that the ability of the profession to resist unfair demands of organised bodies seeking to turn to their own account the growing competition between practitioners of medicine will be greatly strengthened by its having a substantial emergency fund to operate upon in emergency.

New Premises.—At an extraordinary general meeting of the Branch held on May 10th, the Hon. Treasurer moved the following resolution, which was carried unanimously:—"That the Council take steps to enquire for the Association premises suitable for offices, library, committee rooms, meeting hall, and for the other purposes of the Association." At a meeting of the Council held subsequently the matter received consideration, and the time was considered inopportune to build, on account of the high price of building materials. Some members of the Council promised to make the enquiries as to more suitable premises for the situation of a useful library.

Medical Witnesses' Fees.—It is gratifying to note that as the result of action taken by the Council the fees and allowances of medical witnesses in criminal cases have been made the subject of more liberal regulations.

Ethics.—The Council has adjudicated upon and otherwise dealt with several questions of an ethical character referred to it by members.

The Medical Practitioners Acts.—The further amendment of the Medical Practitioners Acts of New South Wales has had the careful consideration of the Council. It is sought to bring the Acts of this State into line with the more recent medical legislation in the United Kingdom and other States. Suggestions for amendment of these Acts have been drafted and approved by the Council and by the N.S.W. Medical Board, and are ready for submission to the Government.

Australasian Medical Gazette.—The AUSTRALASIAN MEDICAL GAZETTE, under the able editorship of Dr. G. E. RENNIE and the skillful management of Dr. W. H. CRAIG, has continued successfully to carry on its useful work on behalf of the Association.

Financial Statement.—The Hon. Treasurer's statement of receipts and expenditure for the year ended December 31st, 1907, and profit and loss account, and the balance sheet of the AUSTRALASIAN MEDICAL GAZETTE, duly audited, are herewith submitted.

PAPERS AND EXHIBITS.

ORDINARY MEETINGS.

"A Case of Spina-bifida" (with living exhibit).—Dr. A. LEWIS LEVY.

"The Internal Secretions of the Ovary and Testicle in relation to the secretions of certain ductless glands."—Dr. REES LLEWELLYN.

"Two Cases of Malignant Disease treated by Trypsin."—Dr. CHARLES MACLAURIN.

"Lead Poisoning in Children."—Dr. MACDONALD GILL.

"Notes on Fever in Cases of Pulmonary Tuberculosis."—Dr. F. G. GRIFFITHS.

"Urticaria in Relation to Gynaecology."—Dr. CHENHALL.

"A Case of Bilharzia Hæmatobia" (with specimens).—Dr. NEWMARCH.

"Etiology of Intussusception."—Dr. L. P. HIPSLEY.

"Death after Operation."—Dr. HINDER.

"Splenic Anæmia."—Dr. SYDNEY JAMIESON.

"Appendicitis—a Year's Work."—Dr. CHARLES MACLAURIN.

"The Incidence and Fatality of Hydatid Disease."—Dr. CHARLES MACLAURIN.

"Ringworm and its Treatment."—Drs. HERSHELL HARRIS and W. J. MUNRO.

"The Radical Treatment of Sliding Hernia."—Dr. T. FIASCHI.

"A Case of Periodic Fever with Marked Lymphocytosis."—Dr. SINCLAIR GILLIES and Professor D. A. WELSH.

"A Case of Dislocated Spleen, with Operation."—Dr. BLACKBURN and Dr. GORDON CRAIG.

"A Case of Gangrene of the Ileum."—Dr. E. H. BINNEY.

"Precipitin Reaction in Hydatid Disease."—Dr. H. G. CHAPMAN and Professor WELSH.

"Notes on a Case of Undulant Fever (Malta Fever)."—Dr. STORIE DIXSON and Dr. A. ASPINALL.

"A Case of Cardiac Arrhythmia."—Dr. MACDONALD GILL.

"Immunisation in Cancer."—Professor WELSH.

CLINICAL EVENINGS.

"Three Cases of Fracture of the Skull" (with living exhibits).—Dr. T. FIASCHI.

"Case of Pancreatic Cyst—Rupture-Peritonitis—Death" (with specimen).—Dr. T. FIASCHI.

"Case of Intrascapulo Thoracic-Amputation for Sarcoma" (with living exhibit).—Dr. W. J. MCKAY.

"Description of a Case in which a Diet of Cotton Wool Sandwiches as treatment for Swallowing a Gold Plate carrying a false tooth had been efficacious."—Dr. GORDON CRAIG.

"Case of Sarcoma of the Skull in a Child of two years of age (living exhibit).—Dr. W. F. LITCHFIELD.

"History of a Case for which a Paraffin Nose had been made (living exhibit).—Dr. HERSHELL HARRIS.

"Case of Achondroplasia (with living exhibit).—Dr. W. F. LITCHFIELD.

"Case of Bilharzia Hæmatobia (exhibits).—Dr. H. C. HINDER.

Case of Intra-uterine Cerebral Hæmorrhage (with exhibits).—Dr. R. B. WADE.

Hypertrophic Prostate (with specimen).—Dr. T. FIASCHEL.

Case of a peculiar form of New Growth of Breast (with specimen).—Dr. SYDNEY JAMIESON.

Case of Intestinal Anthrax.—Dr. MILLARD.

Case of Disseminated Sclerosis (with living exhibit).—Dr. J. M. GILL.

Case of Severe Injury to Brachial Plexus (with living exhibit).—Drs. A. MACINNES and SCOT SKIRVING.

Primary Sarcoma of the Breast (living exhibit).—Dr. P. FIASCHEL.

Hæmorrhagic Pancreatitis (exhibit).—Dr. A. ASPINALL.

Kidneys with renal and ureteric calculi in situ (exhibit).—Dr. A. ASPINALL.

Kidney with Double Ureter (exhibit).—Dr. A. ASPINALL.

Two Hairballs from Stomach and Intestine of same patient (exhibit).—Dr. A. ASPINALL.

Larynx (two specimens), Malignant Growth (exhibit).—Dr. A. ASPINALL.

Fourteen Council meetings were held during 1907-8.

Dr. Newmarch attended 13 meetings; Dr. Crago, 12; Dr. Todd, 12; Dr. Rennie, 11; Dr. Clarence Read, 11; Dr. Pockley, 11; Dr. Hinder, 10; Dr. J. A. Dick, 9; Dr. G. H. Abbott, 9; Dr. Maitland, 9; Dr. A. J. Brady, 9; Dr. MacCormick, 6; Dr. Jenkins, 6; Dr. Beeston, nil.

The retiring President (Dr. B. J. Newmarch) having left for England, his address was read by the Hon. Secretary, Dr. Todd. (See page 163.)

On the motion of Dr. FIASCHEL, seconded by Dr. McCLELLAND, a hearty vote of thanks was passed to Dr. Newmarch for his address.

The CHAIRMAN then declared the following officers and councillors elected for the ensuing year:—President, Dr. G. H. Abbott; vice-president, Dr. H. V. C. Hinder; councillors—Drs. Crago, Todd, Pockley, Rennie, MacCormick, Dick, Maitland, Worrall, Palmer, Jenkins, Brady and Read.

Dr. ABBOTT returned thanks for the honour conferred upon him in his election as president.

Dr. CRAGO also thanked the members for electing him to the Council for the twentieth time in succession.

Dr. J. A. DICK moved and Dr. CHENHALL seconded a vote of thanks to the scrutineers. Carried.

Dr. SINCLAIR GILLIES moved and Dr. H. S. Lloyd seconded a vote of thanks to the auditors, and that they be re-elected. Carried.

On the motion of the HON. TREASURER, seconded by Dr. FOURNESS BARRINGTON, Dr. Newmarch was elected representative of the Branch to the representative meeting to be held at Sheffield in connection with the forthcoming annual meeting of the Association, with the right of appointing Dr. Todd as his substitute in the event of his inability to attend.

Drs. Newmarch and Todd were, on the motion of the HON. TREASURER, seconded by Dr. ASHTON SHORTER, appointed delegates from the Branch to the annual meeting of the parent Association, which is to be held at Sheffield in July and August, in response to a request received from the president-elect (Prof. Simeon Snell).

The HON. SECRETARY moved the following resolutions:

1. Local Associations of members of the Association formed with the object of promoting the scientific, medico-political, and medico-ethical interests of their members, may be affiliated to the Association. 2. The local area or boundaries of affiliated local Associations

shall be determined by the members thereof, subject to the approval of the Council. 3. Each affiliated local Association shall be free to govern itself in such manner as it shall think fit, and for that purpose to make such rules as it shall think expedient, and to repeal or alter the same; but no such rule or repeal or alteration thereof shall come into operation until it has been submitted to and approved by the Council. 4. Every affiliated local Association shall furnish to the Council, in the month of January in each year a report of its proceedings during the previous year, together with a statement showing the names and addresses of all its members and such other particulars as the Council may require.

Seconded by Dr. SANDES.

Dr. QUARF thought difficulty might arise in dealing with a member of a local Association who was not a member of the B.M.A. The local Associations were asked to part with their British liberty.

Dr. SAWKINS moved an amendment to insert the words "medical practitioners eligible to become" after the words "local Associations of" in the first line of 1, which was seconded by Dr. WADE.

Dr. SINCLAIR GILLIES moved—"That the resolutions be postponed for another meeting and that a vote by proxy be taken."

The motion and amendments were discussed by Drs. Pockley, Gillies, Lawes, Crago, Todd and Sawkins.

The Chairman ruled Dr. Sawkins' amendment out of order.

Dr. Gillies' amendment was put and negatived, and the resolutions were then put and carried *nem. con.*

MEDICAL BENEVOLENT FUND.—The Hon. Treasurer of this fund being absent from Sydney, the statement of the fund was not presented. The former committee was re-elected.

Dr. CRAGO said as this was the last general meeting to be held before the departure of the Hon. Secretary for a trip to Europe, he would ask them to pass a very hearty vote of thanks to Dr. Todd for his valuable and Herculean services during the past year and to wish him *bon voyage* and a very pleasant holiday. He (Dr. Crago) was hoping that Dr. Todd would consent to be re-elected hon. secretary and that an acting hon. secretary could be elected to carry on the work during his (Dr. Todd's) absence. This was carried with enthusiasm.

Council Meeting.

THE Council met at the Association Rooms on Tuesday, March 10th, 1908. Present: Drs. Newmarch, Rennie, Crago, Pockley, Hinder, Todd, Abbott, Brady, MacCormick, Clarence Read, Maitland.

The minutes of the Council meeting of February 11th were read and confirmed.

HON. TREASURER'S Statement.—General account, credit, £715 8s 4d; *Gazette* account, credit, £532 3s 8d.

Report of the sub-committee on the amendment of the Medical Practitioners Act.—Resolved—That the proposed amendments be approved and submitted to the Hon. the Premier.

Resolved—That Drs. Crago and Todd be authorised to initial ballot papers.

Resolved—That Drs. Sawkins, F. W. Hall, Stacy, and Palmer be appointed scrutineers.

The HON. SECRETARY read the draft report of the Council, and approved by the Council.

Advertising in newspapers at Tenterfield and the Tweed.—Resolved—That the various medical men be written to and their attention called to the regulations, and the law on the matter be also communicated to them.

Motion *re* affiliation of local Medical Associations.—Resolved—That the motion be submitted as an ordinary resolution, not as a "special resolution."

Letter from Hon. Secretary of Queensland Branch *re* honorary medical officers to charitable institutions.—Information to be supplied.

Lismore Hospital and its Medical Officers.—The HON. SECRETARY explained the circumstances of the whole case. Resolved—That the letter of the Secretary of the Lismore Hospital be received.

West Australia.

The first monthly meeting for 1908 of the above Branch was held in the Perth Hospital on Wednesday evening, March 18th, 1908. Present: Dr. W. P. Seed (president) in the chair, Drs. Martin, Rigby, Thorp, Randell, Saw, L. Robertson, Teague, Officer, Darbyshire, Tymms, Ramsay, Blackall, Lotz, Ambrose, Flecker, J. M. Y. Stewart, Chapman, Cleland and Couch.

Minutes of previous meeting were read and confirmed.

Dr. MARTIN showed a case of neuropathic keratitis with perforating ulcer. There was absence of tactile sensation over the cornea and over the skin area supplied by the supraorbital and the infraorbital nerves.

Dr. J. M. Y. STEWART showed a man aged 33 upon whom he had operated for malignant disease of the rectum. Since the operation the patient had steadily improved in health and increased in weight.

The following were unanimously elected members of the Branch:—Dr. H. O. Chapman, M.B., B.S.; Dr. David Taylor, M.B., Ch.M.; Dr. R. A. Parker, M.B., M.S.; Dr. N. J. Gerrard, M.B., B.S.; Dr. Roberta H. M. Gull, M.B., C.M.; Dr. A. E. Morton, M.B., Ch.B.; Dr. W. J. Durack, M.B., Ch.M.; Dr. J. H. L. Cumpston, M.D., B.S., D.P.H. Dr. W. E. O'Hara was admitted a member by transfer from the Victorian Branch.

Accounts to the amount of £84 10s were passed for payment.

Correspondence was received from Mr. Simeon Snell inviting delegates for the annual meeting at Sheffield. It was decided to ask Dr. Trethowan to act as our delegate; also, a letter was read from the A.M.P. Society *re* fee for insurance examination. The Secretary was directed to write to the Society and say that in its opinion a fee of one guinea was a fair thing for an ordinary examination at the house of the doctor.

Dr. CLELAND showed as a pathological specimen a mouse with favus, and also a microscopic slide of same.

Dr. SAW then read an interesting account of some instructive kidney cases (see p. 177). A short discussion took place; Drs. Cleland, Blackall and Randell taking part.

The report of sub-committee on Goldfields Hospitals was read and received, and after some discussion it was decided to ask the sub-committee to continue its work, further information having come to hand. In the meantime Dr. Thorp was authorised to advertise in such papers in the eastern States as seem necessary, and reply by "warning notices" to the lying advertisements inserted by the committees of these hospitals for the purpose of deceiving medical men in the other States and inducing them to take these appointments.

Dr. CLELAND moved, and Dr. MARTIN seconded a motion to alter the date of the annual meeting to the first meeting in the year, and to leave the date of election of officers unaltered.

Dr. COUCH moved that it was desirable to form a W.A. Medical Sickness Society. After some discussion it was decided to postpone further consideration of this matter till next meeting.

Victoria.

THE ordinary monthly meeting was held on Wednesday, April 1st, in the hall of the Medical Society of Victoria. The President (Mr. G. A. Syme) occupied the chair, and there were 38 members and visitors present.

Dr. J. W. SPRINGTHORPE gave notice that at the next meeting of the Branch he would move—"That reforms are urgently needed in dealing with cases of early mental disease, and that a sub-committee be appointed to investigate and report what course of action the Branch should take in connection therewith."

Dr. SPRINGTHORPE read notes on "A Case of Gliosis of the Calamus Scriptorius." The patient was also exhibited.

In discussing the case Dr. JAMIESON said that it was quite impossible to grasp and co-ordinate the immense mass of details and symptoms enumerated by Dr. Springthorpe. The case, however, seemed to him to be classifiable as a disseminated sclerosis.

Dr. HILLER referred to a somewhat similar case recorded by Beevor in "Brain."

In reply, Dr. SPRINGTHORPE said that there were no intention tremors, no staccato speech such as is found in disseminated sclerosis. Further, it was surely better to ascribe any case to a single lesion rather than to a multiplicity of lesions, if such lesion could be held accountable for all the symptoms present.

Dr. SPRINGTHORPE also read notes on "A Case of Stokes-Adams' Disease." Lantern slides and microscopic preparations of the heart muscle were exhibited, which showed marked degeneration of the bundle of His. Microscopic and macroscopic examination of the brain showed no discoverable lesion of the bulb.

Dr. T. CHERRY read a paper on "The Milk Supply of Melbourne." He detailed at length the operations of the three Acts of Parliament which govern the supervision of dairies and dairy herds and the distribution of the milk. He drew attention to the enormous percentage of cases of actinomycosis of the udder among rejected cows.

Dr. W. P. NORRIS, Chairman of the Board of Health, emphasised the good work which was being done by the Department of Agriculture under the supervision of Dr. Cherry.

On the motion of Drs. WEBB and AROYLE the discussion on Dr. Cherry's address was postponed until the next ordinary meeting.

South Australia.

THE ordinary monthly meeting was held at the University on Thursday, March 26. There was a good attendance of members. The President (Dr. J. H. Evans) in the chair.

Exhibits—Clinical Cases:

Dr. TODD showed a patient whose knee was excised for tuberculosis seven years ago. Although there was only fibrous union the stability of the limb was good.

Dr. CUDMORE showed a patient suffering from multiple tubercular deposits, whose elbow he had excised in preference to amputating the arm. The result was an exceedingly good example of conservative surgery.

Dr. LENDON showed a boy aged 14 who had, as a result of severe anterior poliomyelitis paralyzing the lower extremities, never been able to walk. He had excised (arthrodesis) both knee-joints, with the result that the patient was able to stand unaided and could walk with slight assistance.

Pathological Exhibits :

Dr. T. G. WILSON showed a specimen of cervical fibroid removed by what was practically pan-hysterectomy, as only a shell of the vaginal portion of the cervix was left.

The PRESIDENT presented the report of the Council on the question of obtaining rooms for the Branch. It was to the effect that the Council had no scheme to bring before the Branch owing to financial reasons. The President explained at length the steps he had taken.

Dr. J. A. G. HAMILTON proposed that the Council be requested to consider whether rooms could not be acquired for the purposes of a library and meeting room at a moderate rental.

Seconded by Dr. SWEETAPPLE, and carried.

Dr. J. A. G. HAMILTON resumed the discussion on Dr. Giles' paper on "Cancer of the Sigmoid." He insisted on the necessity of early diagnosis in these cases, and strongly advocated the use of the Murphy button.

Dr. SCOTT also discussed the paper.

Dr. SWIFT read his paper on the "Treatment of Tubercular Joint Disease by open cut and exposure to Sunlight."

Dr. CHARLES TODD opened the discussion on the treatment of tubercular joints, and pleaded for early and radical excision, which had always given him good results.

Dr. J. A. G. HAMILTON considered that sufficient use was not made of chemical solutions. He himself had had excellent results from formalin as an irrigating fluid after scraping tubercular joints.

Dr. F. MAGAREY also discussed the paper.

The meeting then terminated.

REPORTS OF OTHER SOCIETIES.

New South Wales Medical Union.

The annual meeting of the Union was held at 121 Bathurst-street, Sydney, on March 25th. Dr. Foreman presided, and there was a fair attendance of members.

The HON. SECRETARY read the annual report, as follows:—

THE FIFTEENTH ANNUAL REPORT, 1907-8.

The Council reports another successful year in the affairs of the Union. Three hundred and thirty-one (331) members have paid the annual subscription, as against three hundred and twenty seven (327) in the previous year, an increase of four (4). Eighteen (18) new members have been elected and fourteen (14) have dropped out from various causes.

The Council records with regret the death of Dr. Valée, of Inverell.

The local hon. secretaries have continued to perform their duties in a satisfactory manner.

The Council has furnished financial assistance to two members. In the first case a District Court action, claiming compensation, was brought against one of our members for unskillful treatment of a case of fracture of both bones of the forearm in a boy. The case was settled out of court, after plaintiff had made a complete withdrawal of all the statements which he had made. The second case was that of a child brought to defendant for a small wound in the upper eyelid. The child was afterwards taken to a hospital, where the eyeball was removed for orbital suppuration. Some weeks afterwards a splinter of wood came away, on the nurse syringing the socket. The father of the child brought an action in the District Court against the medical man who first treated the child. The case was tried in

Newcastle on November 27th, but the Judge said, after plaintiff's case was concluded, that there was not sufficient evidence to go to a jury and entered a non-suit. Defendant had to pay his own costs, as he was unable to recover anything from the plaintiff.

The treasurer's statement shows the funds in hand to be £3733 10s 3d, an increase of £282 10s 1d on the year.

The Council regret that so many of the practitioners of the State fail to avail themselves of the privileges of membership of the Union, and would urge upon members the desirability of inducing any of their friends who do not belong to join.

Six Council meetings have been held. The number attended by each member was as follows:— Dr. Quaife, 4; Dr. Faithfull, 5; Dr. Fiaschi, 2; Dr. Brady, 6; Dr. Carruthers, 4; Dr. Collins, 6; Dr. Crago, 5; Dr. Foreman, 3; Dr. MacCulloch, 5; Dr. Maher, 4; Dr. Read, 4; Dr. Rennie, 3; Dr. Spencer, 6; Dr. Wood, 3; Dr. Gill, 6; Dr. Jarvie Hood, 5.

Dr. J. M. GILL moved the adoption of the report, seconded by Dr. SPENCER. Carried.

The HON. TREASURER read his financial statement as follows:—

NEW SOUTH WALES MEDICAL UNION.**STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDED FEBRUARY 29TH, 1908.**

RECEIPTS.			
	£	s.	d.
To Balance, February 28, 1907 ..	3,451	0	2
„ Subscriptions received ..	328	13	0
„ Entrance fees ..	17	17	0
„ Amount added for exchange ..	1	5	6
„ Interest received ..	122	0	9
	£3,920	16	5
EXPENDITURE.			
	£	s.	d.
By Amount paid to members ..	149	1	11
„ Assistant Secretary ..	10	0	0
„ Printing ..	13	19	0
„ Stamps (postage and duty) ..	6	18	3
„ Rent ..	5	0	0
„ Bank charge ..	0	10	0
„ Exchange (cheques) ..	1	17	0
„ Cr. balance ..	3,733	10	3
	£3,920	16	5

Examined and found correct,

C. B. BLACKBURN } Auditors. W. H. CRAGO,
G. A. MARSHALL } Hon. Treasurer.

March 2nd, 1908.

Dr. CRAGO moved the adoption of the statement, seconded by Dr. MACCULLOCH. Carried.

Commonwealth Quarantine Bill.—The New South Wales Board of Health has been informed that the nature of the board's recommendations in respect of the Commonwealth Quarantine Bill, for the compulsory removal from ships at the first port of call of persons suffering from quarantinable diseases, was appreciated by the Federal Government. The matter, it was added, together with other suggestions from the board, was receiving consideration.

Hospital Saturday for 1907 proved a hardly less noteworthy event in Dunedin than its predecessors. A handsome return of over £720 rewarded the efforts of the collectors, and this, with the Government subsidy, will admit of the achievement during the next twelve months of much useful work by the organisations affected.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Should Cholecystitis and Cholelithiasis be any longer considered Medical Affections, and what are the usual consequences of so treating them?

De Nancrede (*Annals of Surgery*, February, 1908) contributes a paper under the above heading. He states that his attention was recently drawn to the views apparently held concerning cholecystitis and gallstones by the rank and file of the profession, by a remark of his chief of clinic, "that the general profession at present seems to occupy the same position towards biliary surgery that it did ten years ago towards appendicitis." He is satisfied that this is largely true, and that the real importance of certain biliary conditions and the impossibility of successfully dealing with them otherwise than by the knife, is not widely enough recognised. The idea is certainly too prevalent in the profession that to warrant a diagnosis of cholecystitis some jaundice should be present, and that a painful tender tumour in the region of the gall-bladder should be demonstrable with possibly chill, but certainly marked fever, while the failure to detect jaundice seems to many, unavowedly, to unsettle their tentative diagnosis as to the possibility of cholecystitis. If asked point blank whether uncomplicated inflammation of the gall-bladder could produce jaundice, the majority would answer correctly, no, but practically the absence of this symptom staggers them. The author's first postulate is that cholecystitis is an infective process which precedes the formation of gallstones, and that either with or without stone formation this disease of the gall-bladder implies certain potential dangers. It is true that the most common form of cholecystitis is produced by germs of low virulence, but what warrant exists for the belief that secondary infection with virulent organisms will not take place, causing infective cholangitis—often a most fatal condition—or suppuration or gangrene of the gall-bladder with fatal peritonitis? What certainty is there that crippling adhesions involving the stomach and intestines will not form with persistent ill-health, or even hopeless gastric dilatation? The absence of gallstones at an operation in chronic cholecystitis does not prove that none have been passed or preclude the probability of their new formation. Several cases are quoted to demonstrate that cholecystitis with or without stone may present few of the ordinary symptoms expected, that it may prove a menace to life when least suspected, and that the symptoms in some instances closely simulate those of common duct stones, while suppurative and gangrenous cholangitis is seen to be a most dangerous condition which may develop at any time from a chronic cholangitis. An answer to the question what causes jaundice in hepatic ailments? will clarify our ideas. Obstruction of the common duct will compel back pressure and resorption. Adhesions, pressure from without by a tumour, inflammation of the pancreas, distortion or narrowing of the duct orifice by traction on the duodenum (as is sometimes caused by a loose kidney) can produce choledoch obstructive jaundice as well as calculus. Infective cholangitis causes obstruction of the intra-hepatic ducts from swelling of their lining membrane, interfering with or arresting the exit of bile, thus favouring its resorption. When the jaundice is not due to common duct obstruction

it can only be produced in this way, if we except a hæmatogenous origin. A rather blind acceptance of the group of symptoms supposed to indicate the presence and passage of gallstones is too prevalent in the profession, viz., pain starting in the right hypochondrium radiating to the back and preferably to the right shoulder; violent vomiting, a sudden cessation of the pain, jaundice, clay-coloured stools, and calculi to be found in the stools if careful enough search is made. Brief notes are given of 44 cases which have occurred in the author's practice, and one must be struck by the absence of many symptoms usually deemed to be almost universally present in the classes of cases described. Jaundice was present in 75 per cent. of the cases, but in about one-third of these no calculi existed anywhere in the biliary apparatus. In about one-sixth of the cases vomiting occurred during the majority of the attacks, while in one-third of the cases studied emesis was only occasional. Acholic stools were determined in a little more than one-fourth of the cases, and only in one-eighth of these acholic cases were calculi ever detected in the stools. Chills, fever and sweats occurred in almost one-third of the cases, while in the other two-thirds these symptoms were positively excluded. Less than half of those suffering from those aguish paroxysms (so commonly thought to be due to common duct stone) had calculi so located, or even duct obstruction from other causes. The seat of pain varied very considerably. A point of etiological interest is the fact that seven of the patients had had typhoid fever. The author discusses the dangerous sequelæ of cholecystitis and cholangitis and their diagnosis, and, in conclusion, states that his object will have been secured, if he shall have induced any of his readers to recognise the existence of many serious hepatic and biliary conditions which can only be properly met by use of the knife.

The Value of the Differential Leucocyte Count in Acute Appendicitis.

Noehren (*Annals of Surgery*, February, 1908) contributes a short paper based on 72 cases of appendicitis and its sequelæ, in which a blood examination was made just previous to operation, so that the result of the examination can be compared with the actual condition present. The findings at operation have been divided into five classes:—1. Diffuse peritonitis—free pus in the greater part of the peritoneal cavity. 2. Spreading peritonitis—free pus in a limited portion of the abdomen, but not walled off by adhesions. 3. Gangrenous appendicitis—appendix gangrenous to greater or less extent, not walled off by adhesions. 4. Inflamed appendix—appendix inflamed, no gangrene, no perforation, no adhesions around it. Empyema of appendix without gangrene is included in this class. 5. Abscess—pus outside of appendix, but walled off by adhesions from the remainder of the peritoneal cavity.

The author summarises the result of his investigations in the following conclusions:—1. Blood examinations in cases of acute appendicitis is of great value in determining the severity of the condition, and therefore deciding whether or not immediate operative interference is indicated. 2. The degree of leucocytosis, formerly considered an important diagnostic aid, is too variable to be of any practical value. 3. The relative disproportion between the percentage of polynuclears and the degree of leucocytosis is reliable in a majority of cases, but the number of exceptions is so great that its practical value in determining immediate operation

becomes very small. 4. The estimation of the percentage of polynuclears alone is more reliable than either of the preceding methods, and, therefore, together with the fact that it is the one most easily made, the method is to be recommended. 5. A polynuclear percentage of 90 per cent. or more indicates a severe process that needs immediate operative interference; a percentage below 78 per cent. means a "safe" or mild process; a percentage between the two extremes speaks for the one condition or the other, according as it approaches the one extreme or the other.

Appendicitis.

Stanmore Bishop (*The Practitioner*, March, 1908) discusses some points in connection with appendicitis, in a post-graduate lecture delivered at Ancoats Hospital. He says that quite recently letters and articles have appeared in the public press, written ostensibly by medical men, which, whilst they pretty accurately voiced the general lay opinion which is being formed, showed sufficient want of acquaintance with the actual facts of the case, as to justify some attempt being made to put in a clearer light what is known about appendicitis and its treatment. During the last few months the author has questioned all the medical men to whom he has had access as to their experience and opinions with reference to this complaint, and these included most of the best known operators, and every general practitioner whom he had met, whose testimony as being that of the men who first saw these cases, and had the charge of them in after years, is frequently as valuable as that of the surgeons who operate. The combined result appeared to be this: there exists, at present, a widespread belief that in appendicitis we have an extremely dangerous and treacherous complaint, the course of which cannot be predicted in any given instance; that the most simple may have, without any warning of any kind, a fatal ending; that medicine and nursing are alike powerless against it; that, when once abdominal pain, becoming localised in the right lower quadrant, vomiting, and rise of temperature occur, there is no safety for the patient, or equanimity of mind for the surgeon, until that abdomen has been opened and the appendix removed; that at any moment, and in every case, gangrene or perforation may occur, and the whole abdominal cavity be flooded with pus, or other intensely poisonous material. Every case should, therefore, be operated upon as soon as seen, should, as it were, be shot on sight. Bishop ventures to enter a modest, but not the less firm, protest against this view. He would have done so with more trepidation, had not Mr. Paul, in his address to the Liverpool Medical Institute, already sounded the same note, with more force than he can hope to use, and had not Mr. James Berry, in the *Lancet* of September 7th, expressed a similar opinion. Those who hold the view enunciated are too ready to generalise. To them the word "appendicitis" conveys, or appears to convey, but one idea. Every case is, when once labelled, equal to every other in anatomy, pathology, and potentialities of evil result; they should therefore be treated in precisely the same manner, and, as a corollary, every surgeon or practitioner who does not immediately attack it surgically is guilty of criminal negligence. A little consideration should convince every thinking man, who has had any experience in this work, that all this is not a complete statement of the facts, and that there is room, and indeed pressing need, for some discrimination. One of the most, perhaps the most, important of all the lines of differentiation, is that of previous history; there exists one large class in which a clear

account of one or more previous attacks is available, and another in which no such history can be obtained. Now, gangrene and perforation, those two bugbears of the whole subject, are not processes which die down when once they are started. A man who has an appendix threatened with gangrene does not have a quiescent period of months or years before it becomes dangerous. The thing once begun goes on to a finish. So, that, if there is a history of two or three previous attacks, gangrene of the appendix may be ruled out. Acute perforation, to be immediately dangerous, must open directly into the peritoneum; if, during several previous attacks, protective adhesions have been formed over and around the weak spot, the bowel may perforate, but it will be into a cavity, already walled off in a way far more secure than can be imitated by gauze packing, however scientifically placed; and conversely, those cases which entail a tedious and difficult dissection, in consequence of the adhesions around, do not acquire those adhesions in three or four days, so that we are not likely to be obliged to expose patients, who have had no previous attacks, to a prolonged and difficult operation at a time when speed is above everything else important.

Cases in which there has been failure in removing all the diseased tissue do not, as a rule, find their way into the literature, and the author has searched in vain for an example of what all operators know does occur from time to time. (A hypothetical case is quoted where at the first operation it was found impossible to remove all the rotten appendix, and where a faecal fistula remained. After several attempts to close the fistula, the patient died.) This case, although hypothetical, is based upon actual facts within the author's knowledge, and might happen to any operator who allowed himself to be biassed by the prevailing opinion that in all cases operations should immediately follow diagnosis, and its lesson is no less plain. In cases in which the history of previous attacks renders it probable that many adhesions will be found, or that tedious and careful dissection will be required, it is wisest to choose a time for operation when the patient's condition will permit of the careful and thorough performance of the necessary work, and such a time is not during the height of an acute attack, when the surgeon will be driven by the conditions present to shorten the duration of his interference to the smallest possible; for at no future time will he find the parts so easy to dissect, so capable of recognition as at the first attempt. But all the conditions are altered when once the attack is over and a quiescent period reached; the germs have lost their intense virulence; many, if not most of them, are dead. If a few gain admission to the peritoneum, that membrane can now deal easily with their attenuated force. This is the position with reference to cases which possess a history. In them we are not likely to encounter gangrene or acute perforation. If perforation of the appendix takes place, it will be into a cavity already well shut off by adhesions.

Matters are entirely different in cases with no history. In these we have no previous knowledge as to the relative value of the forces engaged. We cannot gauge the virulence of the micro-organisms or the power of the resistive forces. In such cases, the author thinks, there can be little doubt that operation, if only to ensure thorough drainage at the earliest moment, is the only wise course. We are not likely to meet with dense adhesions; there has not been time for their formation; but, at the same time, too great care cannot be taken not to attempt too much at this time; if the appendix is easily accessible, it may be taken.

away, but even this is risky. The mortality of an appendectomy, during a quiescent period, in expert hands is nil; that of operations, during an acute period, is anything from 25 to 75 per cent. That is a fact never to be forgotten. Bishop submits that the division suggested is a most important one, and that we may contemplate with serenity, in cases with a previous history, temperatures, pain, and vomiting, which in primary cases should at once demand operation. By this distinction also we avoid interference at an unfavourable time with cases in which operative work is likely to be tedious, and therefore dangerous, until a period in which the same can be performed with safety.

THERAPEUTICS.

Thyroid Extract in Migraine and Epilepsy.

Gordon (*Therapeutic Gazette*, December 15th, 1907) remarks that some functional, nervous and mental diseases, depending upon the presence in the organism of toxic products elaborated in some way, improve under the administration of thyroid extract. It is therefore supposed that there is a relationship between the toxic elements found in the body and the thyroid gland. Migraine, which is due to a morbid metabolism, has an undoubted relationship to a faulty thyroid function. The auto-intoxication in migraine is, of course, not always directly due to a disturbed function of the thyroid gland, but there is a series of cases, so to speak, of "thyroid" nature in which administration of the thyroid extract gives satisfactory results. In epilepsy the relation of the seizures to a faulty chemistry of the organism is now an accepted view. Individuals suffering from epilepsy, and at the same time presenting deficient thyroid glands, have sufficient reason to account for their seizures. The author records six cases of epilepsy who had been under treatment for a long time, and who always showed signs of hypothyroidisation. Extreme care in selection of diet, regulation of their mode of living, avoidance of stimulants, intoxicants, and finally the bromide treatment, have all proved to be only very little benefit. When the thyroid treatment was instituted a remarkable change took place, first in the condition of his patients. The apathy, lassitude, and headache have all gradually disappeared, and the gastro-intestinal digestion has improved. The epileptic seizures became less and less frequent, so that at present they are rare. In one patient, a woman of 57 years of age had been suffering from epileptic convulsions for 16 years, there was practically no improvement under ordinary treatment, but a marked diminution of the number of attacks and in the severity began from the time the thyroid treatment was begun. This patient had had no recurrence of attacks for four years. The other cases of the series had an attack once in several months, while prior to the thyroid treatment the seizures occurred once a week in spite of bromides and a special salt free dietary. The conclusion seems justified that there is a certain class of epileptics whose seizures are in direct relationship with a disturbed function of the ductless glands, and particularly the thyroid. In such cases the reason of failure of the usual treatment lies in the want of thyroid feeding. Administration of the latter will be of great benefit.

The Dangers in the Use of Urotropin.

Beardsley (*Therapeutic Gazette*, January 15th, 1908) remarks that this drug has specially proved its value as a urinary antiseptic. The virtue of the drug lies in the liberation of nascent formaldehyde in the glomeruli and tubules of the kidney, neutralising the

toxins and destroying the germs of disease; and recalling the action of formaldehyde, even when diluted, upon any portion of the body or upon the various mucous membranes, one can readily understand how drug toxicity may result from careless use of this drug. The author desires to call attention to three cases in his own experience in which the use of this drug in small doses caused toxic symptoms, and he also summarises other cases from the literature. Case 1 was an old man with enlarged prostate and cystitis, who was given urotropin in 5 grain tablets three times daily, and was warned to dissolve the tablets in a large glass of water before taking it. In four days hæmaturia with much pain developed, and this continued even with doses of only two grains. Case 2 was a young woman, who was given urotropin for alkaline urine with much phosphaturia. After taking 40 grains in 5 grain doses she complained of intense itching of skin, with a sense of discomfort in the abdomen. Examination of chest and back showed the presence of a well-marked scarlatiform rash. The urine contained no blood and was acid at this time. The rash disappeared on withholding the drug, but reappeared when smaller doses were given. Case 3 was an elderly man who had been advised to take this drug for some difficulty in micturition. After taking 4 tablets of 5 grains each he complained of burning pain in bladder, and hæmaturia. A record of the literature on this subject shows that many other observers have noted toxic effect from small doses. Considering first the toxic effect on the gastro-intestinal tract, it is certain that unless well diluted before administration, symptoms of gastro-intestinal irritation are common. The development of a rash is so rare a manifestation of the toxic action of the drug that it is reasonable to ascribe it to some special idiosyncrasy. That urotropin is often an irritant to the kidneys cannot be doubted. It has been proved experimentally that solution of the drug injected into the body cause albuminuria at once, and hæmaturia in a short time. The writer remarks that although it may be true that urotropin is used many times without bad effects, and that it is an agent of great value, yet there are many patients who suffer great pain and discomfort because of its use; that many of these cases are never published, and that the bad effects of the drug are often ascribed to the disease being treated rather than to the remedy. In conclusion, although urotropin is a valuable drug, it is not the harmless agent which the profession have been led to believe; but when used a careful watch should be kept for symptoms of toxic action, and frequent examination of the urine should be made, as red blood cells can be found in the urine before symptoms are complained of by the patient.

Hydrochloric Acid Treatment of Gout.

Falkenstein (*Berlin Klin. Wochenschr.*, December, 1907, abstracted in *Medical Record*, January, 1908) reports on the results of five years' application of his hydrochloric acid therapy in gout. This is founded on his belief that in gout there is a hereditary abnormality of the gastric mucosa, involving the fundus glands and causing diminished hydrochloric acid secretion. The method consists in the continuous administration of considerable quantities of concentrated pure hydrochloric acid, which is given well diluted after meals. The author himself has taken, during more than five years, without any interruption, 50 to 60 drops daily of the concentrated acid without any untoward effects, and with very great relief to his gouty symptoms. He has treated 390 cases of the disease, and says that patients may be divided into three groups. The first

category comprises patients who have had the disease for only a few years and who accordingly have only moderate uratic deposits. With these the hydrochloric acid treatment is very effective, and a permanent cure is possible. The second class includes cases of chronic, typical, or irregular gout, in which, in the course of years, very considerable deposits and tophi have formed. These patients also experience great improvement in the general condition and cessation in the progress of the disease. Further attacks are not altogether prevented, but are usually not severe. The acid is effective only in preventing new deposits, and does not cause solution of those already present. In the third group he places the severest cases of chronic gout, and patients of this type apparently benefit but little by the use of the acid. The author also recommends the addition of from 2 to 100 grams of crude hydrochloric acid to a bath tub full of warm water as an efficient means of promoting cutaneous activity in gouty patients. The patients should stay in the bath about ten minutes, and repeat it at intervals of one or two weeks.

DISEASES OF THE EAR, NOSE AND THROAT.

The Relation between Eye and Nasal Accessory Sinus Disease.

Fish (in the *Journal of Laryngology* for September, 1907) gives a study of 36 successive cases of optic neuritis, and in this series of cases nasal accessory sinus disease was present no less than 26 times. Treatment of the sinuses was followed by improvement of the ocular condition in 15 cases, including among them three bilateral cases which had been restored to normal. The first case was one of bilateral retro-ocular neuritis, with reduced vision. This was due to empyema of the frontal sinus following influenza. Drainage of the sinus was followed by a restoration of the vision to normal. Another case was one of bilateral retro-ocular neuritis, reduced vision and weakness of the interni, and this case was cured by treatment of the frontal sinusitis. The rest of the cases are given in more or less detail, and show clearly that the state of the nasal accessory sinuses should be always investigated in cases of obscure eye trouble.

Eye Manifestations of Latent Disease of the Nose and its Accessory Sinuses, with Reports of Cases.

Another paper on this very important and interesting subject appears from the pen of Packard in the *Laryngoscope* for October, 1907. The importance of this subject may be indicated by the statement of the writer that in none of the cases he reports, in which the ocular findings were of the most varied character, were the nasal symptoms marked enough to direct the patient's attention to his nose as the source of his trouble.

Visual Disturbances showing Causal Relation to Disease in the Sphenoidal Sinus.

A reported case by Murphy, in the "Proceedings of the American Laryngological Society" (the *Journal of Laryngology* for February, 1908), in which the eye symptoms were pronounced, and the causal connection seemed traceable to disease of the sphenoidal cells. The patient referred to was a man of 32 years of age, who was apparently well up to three months before admission. He first had empyema of the right accessory cavities of the nose, then his mind greatly deteriorated, and he got sudden paralysis of the right external rectus muscle and blindness of the right eye.

When admitted to hospital there was some exophthalmos of the right eye, which turned towards the nasal side from complete paralysis of the external rectus muscle. There was great pain at the occiput and base of the brain. Ophthalmoscopic examination showed almost complete atrophy of the optic disc. The blood-vessels, however, were nearly normal in size and number. There was an offensive discharge from the right nostril, both posteriorly and anteriorly. The probe showed extensive necrosis of the posterior ethmoidal cells and the sphenoidal sinus. At the operation the entire right half of the sphenoid bone was found to be necrosed and moveable. The patient rallied from the operation, and did not again complain of the pain at the occiput and at the base of the brain. His mental condition improved, but he died five weeks after the operation from a combination of intercurrent complications.

The Treatment of Foreign Bodies in the Respiratory Tract and Esophagus.

Professor Gustav Killian, whose work has made the town of Freiburg famous, gave an address before the American Laryngological Society at New York in May, 1907. An abstract of this address is given in the *Journal of Laryngology* for December, 1907. The major part of the address is devoted to the removal of foreign bodies from the larynx, trachea and bronchi. Of foreign bodies in the larynx, he says that the laryngoscopic method of extraction has achieved a great triumph, and if the foreign body is not tightly wedged, and in the case of adults, it is the proper method of removal. If the foreign body, however, is tightly wedged in, and (in any case) in children this method will fail, and we have laryngo-fissure, and now, and better still, he thinks, we have direct laryngoscopy by means of the tubes and instruments he has perfected.

Diseases of the Nasopharynx in Infancy.

Morse (*Boston Medical and Surgical Journal*, April 18th, 1907), writing on this subject, points out that adenoids are probably the commonest cause of snuffles in infancy, and are generally present in babies that are subject to colds in the head. He states that the condition is frequently overlooked because the infant does not present those symptoms which are characteristic of the disease in childhood, such as facial expression, mouth bleeding, and snoring at night, but that frequent colds in the head and chronic snuffles are almost as suggestive of adenoids in infancy as those more marked symptoms are in childhood. Treatment of these affections is most unsatisfactory unless the underlying condition is recognised. In severe cases Morse advises removal of the adenoids, after which the "colds" and "snuffles" will cease almost immediately. In mild cases he advocates local astringent and stimulating treatment, and the medicament should be used with a dropper. The drops are put into the nose with the baby lying on its back so that they may run through into the nasopharynx. By these means mild cases will probably clear up. Morse, however, speaks strongly in favour of operation for removal of the growths, and has evidently achieved some striking results. Another symptom associated with adenoids, he mentions, is an irritating cough, without physical signs, which is especially troublesome at night. Here again, he states, the source of the trouble must be recognised and removed. For in these cases drugs and sprays are of no avail, and the cough can only be controlled by stupefying the infant with bromides or paregoric, whereas by operation relief of symptoms would be almost immediate.

MEDICAL MISCELLANY.

Jackson has found that the filarial worms were in the blood of from 10 per cent. to 50 per cent. of tropical and subtropical peoples; wherever mosquitoes have been, malaria has co-existed with them. In the year following May, 1889, 18,594 deaths were due to malaria in the United States; during the next decade the death-rate fell from 19.2 per 100,000 to 8.8 in the registration area, which was about one-third of the whole. In Italy the mortality during the last few years has fallen from over 15,000 to 4700. During the past century 100,000 people died with yellow fever, and five times as many were infected.

The "Prolongation of Human Life" is the title of a new volume by Professor Metchnikoff, to be published presently, in which he will develop at great length the main thesis of his former book, "The Nature of Man," that our lives are not only unnaturally short but also unnaturally burdened with physical and mental disabilities. The legacies received by man from his ancestors are the prime cause of many of the ills of the race, and of the pessimistic trend of so many systems of philosophy and religion. Metchnikoff believes that these traits, which were in harmony with the conditions of the remote past, and are so discordant in the present environment, may be counteracted by rational hygiene. His hope for the prolongation of human life has, he declares, substantial assurance based upon the certainties of science.

A fresh-air school has been opened in Providence, R.I., under the auspices of the Rhode Island League for the Suppression of Tuberculosis. It will be held in a room with large windows on three sides, which will be kept open much of the time; the children not removing their wraps and being provided with foot warmers to keep their feet warm.

The German health officials are considering abolishing the devices for cutting off the ends of cigars that form a familiar part of the equipment of tobacco shops. It is alleged that many smokers make use of the instrument after having already placed the cigar in their mouths, and therefore render possible the transfer of disease germs to other smokers.

A special chair on stammering and other speech defects has been established at the University of Berlin. Professor Gutzmann, who has been appointed the first incumbent of the chair, says that at least one per cent. of German school children between the ages of six and fourteen stutter, and that many more have other defects in speaking. Over 1000 recruits are rejected annually by the military authorities on account of speech defects of one sort or another.

The Austrian Government has decided to establish radium baths on a large scale at Joachimsthal, at present the most productive source of radium known. The municipality of Carlsbad and an English syndicate have been attempting to obtain control of the deposits, but the Government has decided to retain all rights partly as a source of revenue and partly from the standpoint that so important a therapeutic institution should be under State supervision.

The officials of the Christian Science organisation have announced Mrs. Eddy's intention of devoting the sum of \$1,000,000 to the foundation of an institution

to be known as "Mary Baker G. Eddy's Charitable Fund," and intended for the free instruction of the indigent in the principles of her cult.

Another instance of abdominal surgery performed under trying conditions was reported when the Cunarder "Pannonia" arrived recently from Mediterranean ports. A coal trimmer on December 23rd manifested symptoms of acute appendicitis, and the ship's surgeon, Dr. J. Frazer Orr, decided that prompt operation was necessary. As there was a heavy sea on, the engines were stopped and the ship allowed to fall into the trough of the waves to lessen the pitching, while the surgeon, with the aid of a medical assistant, removed an appendix that was found to be gangrenous. On reaching port the patient seemed to be in good condition and likely to have an uncomplicated convalescence.

The St. George's Naueim Institute is to be transplanted to London. Experts and a large quantity of Naueim spring waters are to be brought all the way from Germany to found the Continental spa "cure" in London. The Naueim cure is famous all over the world for its dealing with ailments that resist other forms of treatment, such as heart affections, spinal and nervous complaints, rheumatism, gout, stomach and intestinal disorders.

Between August 5th and August 31st there were about 5500 accidents on the railways of the various bureaus of New York City, the majority occurring when alighting from cars. The serious accidents may be classified as follows:—Persons killed, 42; fractured skulls, 10; amputated limbs, 10; broken limbs, 44; and other serious injuries, 53—a total of 159. Persons injured in car collisions numbered 145; persons injured in collisions with vehicles, 465; persons struck by cars, 405; persons injured boarding cars, 641; persons injured alighting from cars, 1263; employees injured, 641; derailments, 33; injuries on stairways, 26; and other accidents, 1881.

The last German Budget contains an appropriation of \$50,000 for repression of typhoid fever, \$14,000 for a bacteriologic station near Berlin, and \$1250 for compilation of the vital statistics in tabulated form. A million dollars were also appropriated for improving the housing of the poor.

The *Klin-therap. Wochschr.* states that a court at Prague recently had a case before it in which a hospital physician sued a wealthy man for payment for an operation which had been performed by the former in a public hospital. The court asked advice from the local medical chamber, which stated in its response that the fee asked was the usual one under the circumstances, but that a wealthy person should not be admitted to the hospital nor operated on there, as the public hospitals are destined solely for the poor. The hospital physicians should therefore turn away persons known to be well-to-do. In case of doubt as to the applicant's financial standing they can perform the needed operation, but have no right to ask a fee for operations or attendance in the public clinic or hospital.

The new building for Queen's University, Kingston, towards which the Ontario Government donated \$50,000, was opened on January 14th. Dr. Llewellyn F. Barker, of Baltimore, was present, and delivered an address.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Milk Supply of London—Another Honour for Miss Florence Nightingale—The Cost of Medical Inspection of Schools—The Registrar-General's Returns for 1906—The late Lord Kelvin and London University.—The Royal College of Surgeons.

In a report recently issued by Dr. Collingridge, Medical Officer of Health for the City of London, some rather disquieting information is given as to the condition of the milk which arrives from the country for the supply of London. The report relates that, in November last, 24 samples of milk arriving at Liverpool-street from Essex, Suffolk, Norfolk and Cambridge were submitted to Dr. Klein for bacteriological examination, and that the analysis proved two samples to be tainted with tubercle, nine to be impure and dirty, and the remainder only fairly clean. "These results," says Dr. Collingridge, "strongly emphasise the extremely unsatisfactory way in which the milk trade is conducted: 8.3 per cent. of the samples were capable of causing tuberculosis in the human being, while of the remainder 37.5 were found to be more or less dirty. It is a singular fact that although the percentage of unclean samples has largely increased on this occasion the tubercular percentage shows from the first very slight variation, and it may be fairly accepted as the normal proportion of infected milk supplied to the city." One of the tuberculous samples came from a Suffolk farm, and an inspection of the farm buildings and the cows therein by the local medical officer of health and a veterinary surgeon showed that the premises were kept in a satisfactory manner, but one of the cows was certified to be suffering from tuberculosis and was slaughtered, the whole of the carcase being condemned. The other case was from a Norfolk farm, where the medical officer of health certified the cowsheds and dairy to be kept in a satisfactory condition; but the veterinary surgeon reported that he found three suspected cows, which were tested, found to react, and accordingly were removed from the herd. "These reports," continues Dr. Collingridge, "though demonstrating the value of bacteriology as a medium for determining the presence or otherwise of disease in milk, clearly prove that practically no precautions are taken by either the farmers or the wholesale dealers in London to ensure that the milk for which they are responsible is not a vehicle for the conveyance of tuberculosis. The results further demonstrate the fact that while the real method of dealing with the milk question is at the actual source, viz., the farm, there is no real difficulty in getting this effectually carried out on the spot by the local authority. There is no necessity for any central authority to waste time and money in inspecting farms in the country, where their intrusion would be resented, and where the necessary supervision of required work would be most difficult, if not impossible. It is only necessary for each authority to determine the condition of the milk, and if it is unsatisfactory to furnish a report forthwith to the local authority of the district in which the farm is situated, and also to the Board of Agriculture. The Board should be authorised to take action in any case of default by the local authority, and to charge all expenses incurred against such authority."

At a meeting of the Court of Common Council of the City of London, held on February 13th under the presidency of the Lord Mayor, it was moved by Deputy

Wallace—"That the honorary freedom of this city in a gold box, of the value of 100 guineas, be presented to Miss Florence Nightingale in testimony of this Court's appreciation of her philanthropic and successful efforts for the improvement of hospital nursing and management, whereby invaluable results have been attained for the alleviation of human suffering." He paid a warm tribute to Miss Nightingale for the magnificent services she had rendered in the care and the nursing of the sick and wounded, and said that her life and labours had won her a well-deserved place on the city's roll of fame, where she would be in close companionship with great benefactors to humanity like Lord Lister, on whom the honour had recently been conferred. Sir Henry Knight, in seconding the motion, said it was an honour which might have been conferred many years ago, but it was not too late to make amends. The memory of Miss Florence Nightingale's noble work carried him back to the early days when her praises were sung by every civilised nation in the world. The motion was adopted with enthusiasm, and the Chamberlain was asked to ascertain from Miss Nightingale her wishes as to the arrangements to be made for the presentation.

A deputation from the County Councils' Association to urge that a grant from the Exchequer be given to relieve the rates of the cost of medical inspection of school children was received at the Board of Education on February 11th by Mr. McKenna. Mr. Henry Hobhouse stated that, as Chairman of the Education Committee of the Association, he spoke for all the county education committees in England and several of those in Wales, which were unanimously of opinion that they had considerable claims on the Exchequer, firstly, because this was a national subject; secondly, in the interests of education itself, since it was not fair to throw the whole cost on the education rate; and, thirdly, with a view to the regulations being more efficiently carried out. Lord Wenlock laid stress on the impossibility of the agricultural ratepayers bearing the extra cost which this and other new legislation laid upon them. He pointed out how difficult it would be for small holders to pay their way if the rates were increased. Mr. McKenna, in reply, said he greatly regretted that the Chancellor of the Exchequer was not present. He agreed in the main with almost everything that had been said as to the very great unpopularity of the education rate, the excessive burden on farmers, and the necessity for doing something to relieve that burden. As to a special grant, however, it was very undesirable to separate one item of the cost of education from the rest. He agreed that there was considerable ground for the view that local authorities should receive some grant from the Exchequer, not ear-marked, but having some relation to the new charge. This was a justifiable claim, and he would be quite ready to recommend it to the Chancellor of the Exchequer. One great difficulty in the administration of education was the confusion in which the grants at present stood. He hoped in the bill which he would introduce in a few weeks to put the grant system on a different footing. It would be most inconvenient, with this prospect before him, to anticipate a readjustment by creating a new and separate grant. Therefore, any addition ought to come as part of the financial arrangements under the new bill. In his estimate any additional burden to be imposed by the bill would be far more than met by the amount of money which he hoped to offer. It might be said that the financial proposals would not come into operation at once, but the expenses of medical inspection would not be very great

in the first year, and the final advantages to local authorities would far outweigh any immediate loss which might be suffered.

The report of the Registrar-General of Births, Deaths and Marriages in England and Wales for 1906 was issued on January 27th. The estimated population in the middle of the year 1906 amounted to 34,547,016 persons, of whom 16,689,707 were males and 17,857,309 were females. The births during the year numbered 935,081, and were in the proportion of 27.1 per thousand of the total population of both sexes and all ages. This is the lowest rate recorded since civil registration was established in 1875. In 1876 the birth-rate attained the highest point on record, namely 36.3 per thousand living. Since that date the ratio has steadily fallen, and the present census proves it to be 0.1 per thousand below that for 1905, and 1.6 per thousand below the average for the preceding ten years. In his report the Registrar-General says there is no present indication of an arrest in the decline of the birth-rate, the provisional returns for the first three quarters of 1907 showing a decrease in each quarter as compared with those for the corresponding quarters of the previous year. The births registered during the year include 897,691 children born in wedlock, and 37,390 born illegitimate. Some of the consequences of the decreasing birth-rate in this country are modified by a decreasing death-rate. But, as stated in the previous report, the fact is significant that while on the one hand, in the years 1880-2 there were no fewer than six European States in which the fertility of wives was less than that in England and Wales, on the other hand in the years 1900-2 the rate of fertility among married women in England and Wales was, with the exception of France, lower than that recorded in any other European country. Speaking generally, it may be noted that in those counties of England and Wales in which high fertility rates were recorded a large proportion of the male population, according to last census returns, were engaged in coal mining, and that, on the other hand, the low fertility rates were recorded mainly in the manufacturing and agricultural counties. The deaths registered during the year numbered 531,281, and were in the proportion of 15.4 per 1000 of the population at all ages. Although the rate showed an increase of 0.2 per 1000 upon the unprecedentedly low rate of 1905, it was 1.4 per 1000 below the mean rate in the ten years 1896-1905. The 531,281 deaths registered in the year under notice included 274,233 of males and 257,048 of females. The death-rate of males was 16.4, and that of females 14.4 per 1000 living of each sex respectively. The death of infants under one year of age in the year 1906 numbered 123,895, and were in the proportion of 132 per 1000 births. Although this rate was 4 per 1000 above that registered in 1905, it was 15 per 1000 below the mean proportion in the ten years 1896-1905. The mortality from phthisis corresponded to a rate of 1150 per million living, and although this rate was slightly higher than the rate in 1905 it was otherwise the lowest rate on record, and 64 per million below the rate of the five years 1901-5. The deaths in 1906 assigned to all forms of tuberculosis numbered 56,841, fewer by 6041 than the average number in the previous ten years, after allowance for increase of population. Even then tuberculosis was the cause of 10.7 of the mortality from all causes. The deaths assigned to cancer numbered 31,668, and were more numerous by 2882 than the average in the ten years ended 1905. In the six years 1901-6 the death-roll from cancer included no fewer than 176,019 persons, 71,601 of whom were males and 104,418 females. Among the deaths registered during the year were 65 of reputed centenarians. In the preceding three years the numbers were 53, 59, and 58

respectively. The marriages during 1906 numbered 270,038, corresponding to a rate of 15.6 persons married per 1000 of the population at all ages. This rate was 0.3 per 1000 above the corresponding rate in 1905, but was 0.2 per 1000 below the average rate in the ten years 1896-1905. The marriage-rate in 1893 was 14.7 per 1000 living; during the next six years it rose gradually to a maximum of 16.5; in the following five years it fell by degrees to 15.2 in the year 1904, in 1905 the rate was 15.3, and in the year under review it further rose to 15.6. Of the persons who married in the course of the year, 676 are described in the register as having been previously divorced. The corresponding numbers in the three preceding years were 522,578, and 551. The average age of those married is 23.45 years in the case of men, and 26.37 years in the case of women. The proportion of bachelors shows an increase in each age-group up to 55 years, while that of widowed persons is steadily decreasing. The returns show that most widows are remarried between the ages of 35 and 40, and most widowers between 40 and 45.

The Principal of the University of Glasgow has received the following letter from the University of London:—"University of London, Jan. 23. Dear Sir,—We are desired by the Senate of the University of London, who met yesterday for the first time after the Christmas vacation, to tender to you and through you to the University of Glasgow at large an expression of our sincere sympathy in the loss which you have suffered by the death of your Chancellor. Lord Kelvin's researches into the operations of Nature and his contributions to the sum of human knowledge, by which the work of all the Universities of the civilised world has been so notably advanced, have given additional lustre to the illustrious name of the University of Glasgow. It must ever remain to you a source of the proudest satisfaction that a career nobly and beneficently devoted to the welfare of humanity was throughout associated with the body over which he was presiding when the world lost him. We are proud to remember on this occasion that Lord Kelvin was one of the only two men outside the circle of Royalty upon whom the University of London has ever conferred an honorary degree. Yours faithfully, ROSEBERRY, Chancellor; W. J. COLLINS, Vice-Chancellor; EDWARD H. BUSK, Chairman of Convocation; ARTHUR W. RUCKER, Principal."

A quarterly meeting of the Council of the Royal College of Surgeons was held at the College on January 16th, under the chairmanship of Mr. Henry Morris, the president. After the admission of several gentlemen who had passed the requisite examinations and conformed to the by-laws, to the membership of the College, the revised standing rules relating to the office of conservator of the museum were approved, and it determined to proceed to the election of a conservator in the vacancy occasioned by the death of Professor Stewart at the next meeting of the Council on February 13th. Mr. Henry Morris was appointed Hunterian Orator for the year 1909, and Mr. Thomas Bryant was re-elected the representative of the College upon the Council of the Queen Victoria's Jubilee Institute for Nurses. A committee was appointed to prepare a circular to the fellows and members upon the question as to whether women should be admitted to examination for the diplomas of the college.

THE DIAGNOSIS OF TUBERCULOSIS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—With regard to the article "The Diagnosis of Tuberculosis" in the March edition of the *A.M.G.*, will you allow me to point out that the ophthalmo-tuberculi

reaction has been discovered by Wolf-Eisner, of Berlin, who at the meeting of the Berlin Medical Society on May 15th, 1907, reported having obtained that reaction.

I may add that at the meeting of the Berlin Medical Society on May 8th, 1907, von Pirquet read a paper on the vaccination with tuberculin and the cutan-tuberculin reaction, and that it is the question which of the two reactions will be of greater importance.—I am, etc.,

P. HEYMANN.

Lowood, Queensland,
April 4th, 1908.

THE PROFESSION AND THE CLUBS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—That the relations between these bodies are in many instances of a strained nature the columns of our medical papers show only too well. Some members of the friendly societies try to reduce the fee paid to their medical officers to microscopic dimensions; others wish to have an equitable arrangement. The former are the agitators and, as agitators generally do, make the most of their case.

The position is not an edifying one. The trouble is that there is no unanimity amongst us. To prevent further encroachments and to regain lost ground we should try and present a solid front. There should be no necessity for the warning notices such as appear on page 166 of the March number of the *A.M.G.* and the whole page notices (such as page 62 of *advta.*, Feb. 29) appearing nearly every week in the *British Medical Journal*.

Efforts have been made and are still being continued in Adelaide by means of a conference between representatives of the lodges and the Medical Defence Association. The representatives, or at any rate a considerable number, admit the claims of the profession, but admit their own want of power to act. By patient effort and much tact and proper firmness a great deal may be done. Much time will, however, be required.

I have for a long time thought that much of our trouble is due to the elective system of filling lodge surgeon's appointments. This system takes from us the great power of cohesion. It allows of that underselling that has been so baneful in its effects. Some medical men will not have lodge patients at any price; the majority, however, recognise that the system has many advantages, many abuses, and has too strong a hold to be upset, and therefore take them. It would, I think, be a great improvement on the present system if wherever there are friendly societies a list could be kept on which medical men wishing to take lodge practice could put their names down. Members of lodges could notify their respective secretaries which doctor they wished to have. This would not involve more trouble to the secretaries than at present, and would not lessen the attractiveness of the lodges to the classes intended. It would make all the difference to us, as a strong committee could regulate the question of fees, etc. There would be no underselling, and the profession would gain in dignity. Such a reform I recognise would not be brought about at once. It would want to come from within the lodges. There are, however, always leading men in the lodges with reasonable views, and I think it would not be difficult to get some to take up the idea.—I am, etc.,

LEONARD W. BICKLE.

Adelaide, April 3rd, 1908.

Medico-Ethical and Medico-Legal.

A Medical Man Charged with Manslaughter.

—According to a report in the *Sydney Morning Herald*, at the Perth (W.A.) City Court on March 23rd, Dr. W. R. Cortis, a medical man, and formerly resident magistrate at Derby, was charged with having unlawfully killed one Gerald Ascione at Derby on October 1st, 1907.

Geo. W. Duncan, orderly at Derby Hospital, gave evidence that Ascione was treated at that institution on January 5th. Dr. Cortis gave witness a bottle of medicine for deceased, and said that a tablespoonful was to be administered every three or four hours. After the first dose the patient became very ill, and Dr. Cortis, when he saw the medicine again, seemed to get excited, and said he was going to the police station to report the death. Subsequently Dr. Cortis said he thought the medicine had killed Ascione. Witness tasted the medicine, which seemed to smell of carbolic.

Mr. E. A. Mann, Government Analyst, said he analysed two bottles of medicine received from the police. One contained disinfectant of a carbolic nature, but he was of the opinion it was not highly poisonous.

Sub-Inspector McCarthy said accused told him he ordered a dose of medicine containing carbolic by mistake. Cortis was arrested on a charge of manslaughter, but the information was dismissed by the local justice at Derby.

Accused stated that he was resident magistrate and medical officer at Derby since August, 1906. He had been in various London hospitals; had been Mayor of Bathurst, member of Parliament, and captain of the Second New South Wales Contingent. Ascione was suffering from heart disease, liver complaint and dropsy, and was drinking heavily, and witness ordered his removal to the hospital, thinking him likely to die. He was upset at giving deceased the wrong medicine, but afterwards came to the conclusion that the amount of carbolic was not sufficient to cause death. He had never attempted to destroy the medicine nor conceal anything.

After Dr. Couch had given evidence that from the symptoms described by witnesses Ascione could not have died from carbolic poisoning, the magistrate dismissed the case.

Drunk or Dying?—Two cases which have recently occurred in Melbourne have again shown the serious results which may ensue when the diagnosis of the lesion from which a person who is unconscious—or partially unconscious—is suffering is undertaken by the police, instead of a medical man being summoned. The first case was that of a lorry driver, whose death, says the *Melbourne Age*, occurred at the Melbourne Hospital on 21st ult., from fracture of the skull after he had been locked up all night at Northcote on a charge of drunkenness. About 4.45 p.m. on 20th ult. deceased delivered a load of bark at South Preston, but was apparently so "drunk" that he was unable to unload it. A frenchpolisher, earlier in the day in Prahran saw deceased's hat blow off, and the driver, standing up as if to get off his lorry, fell on his head on the roadway. At 7.20 p.m. deceased was seen by a constable lying on his lorry, which was being drawn by a couple of horses along Separation-street, Northcote. As the man appeared to be "very drunk"—he had to be carried to the cell—the constable locked him up, and it was not till 7 o'clock next morning, when serious symptoms became noticeable, that he was removed to the hospital. Dr. Mollison, who made the post-mortem exami-

nation, stated that the injuries to deceased could have been discovered only by a medical man. He had known cases where similar injuries had caused a state resembling drunkenness. The second case was that of a cigarmaker, aged 38, whose death occurred in the Melbourne Hospital on March 21st. Shortly before 11 p.m. on the previous night, deceased was observed to stagger and fall from the kerbstone on to the stone-paved gutter in the thoroughfare mentioned. When his condition was brought under the notice of a constable he was snoring, and there appeared to be nothing wrong with him beyond the fact that he had had too much liquor. On being shaken up he awoke and accompanied the constable to the local watchhouse, a distance of over half a mile, walking unsteadily, but speaking in a fairly rational manner. After being searched and put in the cell at 11.30 p.m. he sat on the floor, and was left to himself. When visited at intervals during the night by the watchhouse keeper deceased appeared to be sleeping off the effects of a drinking bout, but in the morning, when the usual change of duties took place, it was discovered that he was insensible. The sergeant was then communicated with, and deceased was removed to the hospital in an ambulance at 8.30 a.m. The charge of being drunk and disorderly which had been preferred against Kopman was subsequently withdrawn. During the morning Dr. R. A. Stirling performed an operation, but death ensued shortly after 4 p.m.

The occurrence of these two cases demands a most searching inquiry on the part of the police authorities, so that in future police officers should not be allowed to arrogate to themselves the functions of medical diagnosticians.

"Country G.P." writes:—"I was recently subpoenaed to give evidence on a criminal case at Quarter Sessions held in a town 40 miles distant. To get there it was necessary to leave home at 7 a.m., and there was no possibility of return till 7 p.m. At 3 o'clock on the morning on which I had to start I was called to an accouchement, which turned out to be rather serious and was not concluded when I had to leave to catch the train. I obtained the services of another medical man to finish the case, for which I paid him. On leaving the Court that evening a fee of two guineas and my actual railway fare was paid me. I should like to know—(1) if the above sum is all I was entitled to under the circumstances, and (2) if I should have been justified in staying with the accouchement if no other man had been available to finish the case for me? or does the law compel a medical man to leave any case however serious in obedience to a subpoena?"

*(1) The fee tendered is all that G.P. was entitled to under the present regulation. (2) We think that a patient's life is the first consideration; and G.P. would have been quite justified in remaining with his patient. The judge could not take exception to the non-attendance of the medical witness under the circumstances described.—Ed. A.M.G.

THE AUSTRALIAN UNIVERSITIES.

Melbourne.—The University council on the motion of Dr. Barrett, has appointed a committee to consider the appointment of emeritus professors. The mover said that as professors got older their energies began to flag, but the scheme proposed would keep them in connection and sympathy with the University and give them some definite work to do. The proposal would not interfere with the old contracts. In the case of the new contracts, they could retire the professors at 65, and the scheme could be applied in the case of

the latter. Dr. Leeper pointed out that the system prevailed in the Scotch Universities, and the council generally approved of the proposal.

Adelaide.—At a meeting of the council held on March 27th, Professor Pollock reported that he had approved the thesis submitted by Mr. R. D. Klee-man, B.A., B.Sc., for the degree of Doctor of Science. Dr. Pollock reported that the work was worthy of special commendation. The Chancellor read a letter from Professor David from the British antarctic expedition. In the course of his letter Professor David stated that Mr. Mawson was doing excellent work for the expedition, and Lieut. Shackleton was pleased that Mr. Mawson was able to join the expedition. Professor David further stated that he was sure Mr. Mawson would do research work of a high order of merit. The registrar reported that Mr. John Davey, of Honiton, Yorke's Peninsula, desired to present the University Herbarium with a valuable set of seaweed specimens. It was resolved to accept the gift, and to thank Mr. Davey for his kindness.

Sydney.—At the monthly meeting of the senate held on April 6th, the Chancellor, Sir Normand MacLaurin, presided. On the recommendation of the Faculty of Science, the following by-law was added to chapter xviii:—That candidates for the degree of Bachelor of Science in their third year may be permitted to postpone the examinations in the subject requiring practical work until the end of the fourth year, during which they must devote their whole time to work in connection with the subject of the postponed examination to the satisfaction of the faculty. On the recommendation of the professorial board, it was resolved that the qualification for entrance to the department of engineering, which included mechanics as a compulsory subject, should be so amended as to make it compulsory only after the examination of March, 1909. On the recommendation of the University Extension Board the following appointments were made:—Professor MacCallum, chairman; and acting Professors Todd, Woolnough, and Mackie added to the extension board for the year. The Board of Military Studies transmitted to the senate a letter from the War Office informing the University of Sydney, that it had been included in the list of those to which commissions in the British army are allotted. The senate expressed its approval that the army council had placed the Sydney University on the same footing as the universities of Great Britain for promotion to army commissions and that it had recognised first-class honours in the degree examinations by a year's seniority. The following travelling scholarships were awarded:—James King, of Irrawang, travelling scholarship, Mr. T. C. Parkinson, M.B., Ch.M., Barker graduate scholarship, Mr. R. J. Lyons, B.A.

Tasmanian Women's Health Association.—

At the monthly meeting of the Women's Health Association several complaints were received of the sanitary conditions prevailing in different parts, and the secretary was instructed to write to the heads of departments on the subject. The question of inspection of milk in the city was discussed, and the opinion was expressed that the inspection was not sufficient to insure the purity of milk. It was advised that inquiries be made of the local boards as to the matter, in view of the extra cases of typhoid reported. A deputation was arranged to wait upon the Premier on the question of several amendments in the Health Act, and giving the chief health officer more complete control over the local boards.

PUBLIC HEALTH.

New South Wales.

Infectious Diseases.—Typhoid fever continues to be prevalent, especially in the country districts, and the records for the whole State for the fortnight ended March 9th, according to a Board of Health return, show that 216 cases and 16 deaths from the disease were reported. Sixty-two cases and 7 deaths belonged to the metropolitan area, 17 cases to the Hunter River districts, and 139 cases (9 deaths) to the remainder of the State. The city proper had 9 cases, Glebe 7 cases, Tamworth 8 cases, Broken Hill 28 cases, and Cobar 14 cases. Of 96 cases of scarlet fever reported during the fortnight 37 cases came from the metropolis (Marrickville 15), 29 from the Hunter River districts, and 30 from the remainder of the State. Diphtheria cases numbered 107, with 5 deaths, distributed as follows:—Metropolis (Ashfield 7, Burwood 12, Enfield 5, North Sydney 7, and Strathfield 5), 68 cases and 2 deaths; Hunter River districts, 3 cases and 1 death; remainder of State, 36 cases and 2 deaths. Three cases of scarlet fever occurred among the pupils of the Marrickville West Public school during January and February, and nine have been reported during the present month. The whole of the school buildings have been disinfected, while the homes of the children who were stricken with the disease have been visited with a view of endeavouring to trace the cause of the outbreak.

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, March, 1908:—

Colour	14° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·8000
Chlorine	3·3000
Free ammonia	·0000
Albuminoid ammonia	·0108
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0066
Oxygen absorbed in 4 hours	·0826
Permanent hardness	1·9
Total	3·25

NOTE.—Parts by weight per 100,000.

Supervision of Dairies.—The action to be taken in the case of several municipalities and police districts in which the Board of Health's dairy inspectors have reported the existence of premises in a state which is totally unfit for the production of milk, with due regard to health, was considered at a recent meeting of the board. It was directed that in all such cases the local authority for the district should be formally required to serve a notice requiring amendment within a specified time, and, failing amendment, to cancel the registration of the dairymen. This will have the effect of rendering them liable to prosecution if they continue to trade. Although the quality of dairy products as put on the market is not directly any concern of the Board of Health, as long as they are free from infection or other unwholesome qualities, milk and its products cannot be in the best possible condition, or of the best possible flavour and keeping quality when they are produced on premises which are dirty in the ordinary sense. The faults too commonly found on these premises are neglect and inattention, want of structural conveniences, and more often the want of habitual cleanliness. Apart from the question of disease, the greater the cleanliness, and the more perfect the apparatus, the better the prices commanded in the market by dairy products, whether they be milk, cream, butter or cheese. Thus neglect of these requirements really indicates bad business management; and in the interests of health the board is determined to put a stop to it, in as far as the law enables it.

Bubonic Plague.—The efforts of the Board of Health and the local councils seem so far to have practically prevented a serious outbreak of plague. This year only three cases of plague have occurred up to the present, but evidence of the danger continues to be gathered in the shape of plague rats, which are occasionally found in considerable numbers. At the last meeting of the board a report was read from the medical officer of health for the metropolitan district of the progress made with provision of concrete floors and other preventives of rat infestation in suburban municipalities. Within the city it is believed that everything of this kind that can be done was completed some years ago, all that is now necessary being to see that the wire-netting guards to external apertures in buildings are kept in good order. But in suburban municipalities a great deal of reluctance has been exhibited to put in force what are known as the "rat by-laws." Dr. Armstrong, however, was able to report that on a recent survey being made he found that con-

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during March, 1908:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification		Incubator Test Seven days at 37° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatawood ..	.. Faint	Nil	1·20	10·8	·610	·110	·004	·510	—	·419	88·6	88·0	No decomposition
Folly Point..	.. Slight	Faint	1·42	10·0	2·255	·208	·017	·365	—	·857	85·0	83·2	.. ..
Balmoral ..	.. Slight	Nil	1·04	11·6	·970	·140	·024	1·572	—	·707	90·2	85·0	.. ..

crete floors, etc., had been put in during the past year at 32 premises, and that the same improvements were in the course of being made at the time of survey at 13 other premises. Nevertheless, a great deal remains to be done in this direction, and local authorities, in the interests of the health of their districts, are bound to insist upon strict execution of the bylaws mentioned, without regard to the objections which are very often raised by proprietors. The third case of plague for this year was reported on March 30th. A single man, 20 years of age, residing at Forest Lodge, and employed as an assistant delivery clerk at one of the Darling Harbour wharfs, fell ill on March 29th and next day was admitted for treatment to the Royal Prince Alfred Hospital, and there his illness was diagnosed as plague. The matter was reported to the Board of Health, and the patient was removed at once to the Coast Hospital at Little Bay, but he died on April 4th. Plague rats were found at the wharf, at which the patient had been employed on March 21st for the first time this year, and several have been captured on subsequent dates. The last plague case previous to this one was reported on February 24.

Victoria.

Pure Food Act.—By the regulations made under this Act all food offered for sale should be so covered as to prevent contamination. Unfortunately, this is honoured more in the breach than in the observance; but one firm with probably the largest retail business in the metropolis has given an object lesson of how the Act can be observed. The Board of Health is in communication with the municipal council asking them to enforce the Act. The regulations framed by the Board have the full force of law, and when they are broken the councils have power to proceed against the offenders. Recently at the Richmond court a number of prosecutions were brought by the local council against ice cream retailers under the Pure Foods Act, for having sold the commodity of a quality that was below the standard prescribed. Evidence was given for the prosecution to the effect that the municipal inspector had purchased various samples of ice cream from local retailers, and that, upon being frequently analysed they were all below the standard—in some cases considerably so—in the percentage of milk fat prescribed. For the defence it was urged that there was a vast difference between "standard" and "mixed" ice cream. In the former not less than 6.8 per cent. of milk fat was prescribed; in the latter not less than 2.5 per cent. The retailers were apparently being prosecuted because they had sold ice cream without stating that it was "mixed," and not of a standard quality. The defendants were each fined 5s, with 21s costs. The P.M. pointed out that defendants on a second conviction would be liable to a minimum fine of 25s.

Notification of Infectious Diseases at Dairies.—Owing to the prevalence of typhoid fever the officers of the Dairy Supervision branch have drawn the attention of dairymen to the fact that, in accordance with section 22 of the Act, it is necessary for them to report to the municipal clerk of the district and to the local supervisor or police constable the existence of any infectious diseases among persons employed in or residing at dairies. During the recent epidemic of typhoid in certain centres cases occurred among dairy employees. They were not reported, and did not become known to the department until discovered by the supervisors. The obligation is on the dairyman to

report, not upon the supervisor to find the cases out. Failure to comply with the law in this regard involves the liability to a severe penalty. In the cases which have been discovered prosecutions have been authorised by the Minister.

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health, held on March 26th, Dr. W. Ramsay Smith, the chairman, referring to a communication from the local board, Encounter Bay, with reference to a proposed cottage hospital and maternity home at Victor Harbour, furnished the following report:—On March 20th I visited Victor Harbour and made enquiries regarding the proposed cottage hospital and maternity home for which a license had been requested by nurses Gill and Sweetapple. I met the chairman of the local board of health for Encounter Bay, and I also inspected the premises for which the local board had refused to grant a license. The house is the farthest east of three cottages fronting the beach, on the opposite side of the road to Warland's hotel. They are all close to the railway. Between them and the beach are two tennis courts and a newly enclosed space, which is being laid out for a bowling green. These recreation grounds belong to the district council, and are managed by a committee on behalf of the people. The house is separate from the others. It does not possess all the conveniences that some people may think essential or desirable in a hospital in these days; but it is quite suitable for the purpose, and conforms with the conditions prescribed by the central board, upon which licenses shall be granted. It is desirable that a place like Victor Harbour should possess an institution of this sort; and the local board of health is naturally expected to give every facility to any one proposing to establish such, especially if qualified and experienced, as the applicants in this case are. The reasons given by the local board of health for refusing the license may be referred to:—1. That a hospital will tend to keep visitors away from where a lot of money is to be spent to induce them to come. There are two possible reasons for visitors avoiding the neighbourhood of the proposed hospital, viz., (a) The danger of contracting disease; (b) sentimental objections to being in the vicinity of sick persons. (a) A hospital more than any other place is calculated to prevent the spread of disease. It is better and much safer for a community that cases of disease should be isolated, and kept under supervision in one building under trained and expert observation, than that they should be left under the care of unskilled persons in several isolated centres to spread infection. It does not appear, however, that the applicants intend to admit cases of infectious disease. In any case, the reason advanced is invalid. (b) Sentimental objections. Objections founded on sentimental considerations are a survival of the time when people either killed their sick or kept them out of sight, and attempted to flog the disease out of them, or deprived them of comforts and attention that they would not refuse to their domestic animals. Such practices have much declined with civilization, and the sentiments have been largely eradicated by moral progress and by refining and educative influences. Hospitals in cities are often placed in conspicuous situations, and even in public thoroughfares and in public recreation grounds. At seaside resorts they are frequently placed on the sea front on esplanades. Children are taught to take an interest in them, and older people visit them and take

a pride in them, one town vying with another in respect to them. When the existence of public sentiment is urged as a reason why a hospital should not be placed in a certain position, it is almost invariably found that this reason is urged merely to conceal a motive whose real nature is too unworthy to be plainly or publicly stated. 2. That the premises are pokey, and the yard room far too inadequate. The premises conform to the conditions prescribed by the central board of health, upon which licenses shall be granted. The yard is ample for the requirements. 3. There is not any room to enlarge the premises. There is no proposal to enlarge the premises, nor is any necessity shown for their enlargement. It is to be noted in connection with this and paragraph 2 that the applicants did not intend these premises to be more than temporary, pending the erection elsewhere of a building specially fitted for the purpose. 4. That in the opinion of the board, the premises are far too close to the railway line. It is not stated whether the proximity to the railway is detrimental to Victor Harbour by interfering with the proper working of the line, or in any other way. If the meaning is that it is detrimental to the patients, this is a matter that does not appear to concern the board. The other houses in the neighbourhood are as near, or nearer; but the board has not said they were therefore uninhabitable even by sick people. The protest signed by 40 ratepayers is made on the ground that they are convinced that if an institution of this nature is once established on the parade it will do serious injury to the town in many ways. The lack of definiteness in the protest precludes any further reference to it than what is made above in paragraph 1. I find that the applicants, after having paid a deposit on the purchase of the premises, have, since the refusal of the license, abandoned the idea of going on with the house, and intend to buy a site and build, provided that there is a reasonable assurance that a license will be granted for a house that fulfils the conditions laid down. The action of the local board and the reasons given, certainly afford no ground for supposing that conformity with the central board's requirements will be the test in considering any applicants. The secretary was directed to send a copy of the chairman's report for the information of the local board of health, and to say that if the conditions prescribed by the central board of health are complied with, a license should not be refused by a local board; and that in this case the conditions are such as would be approved by this board under the provisions of section 146 of the Health Act, 1898.

Queensland.

Bubonic Plague.—The Commissioner for Public Health reports for the four weeks commencing March 14th:—*Brisbane.*—Plague: Case 8.—S. N. A., male, aged 17 years, employed at Burns, Philp and Co., Mary-street. This case and the previous case (No. 7 reported in last bulletin) were both employed as cellarmen in the same warehouse. This latter patient (Case 8) died in the Brisbane General Hospital on March 6th from "pneumonia." Owing to the suspicious circumstances attached to this case, the Commissioner ordered a post-mortem examination of the body. This examination showed septicæmic plague with secondary plague pneumonia. All precautions were adopted with regard to the body and the "contacts" in the case. No further development has taken place among the "contacts" or employees at the store. Case 9.—G.T., male, aged 18 years, residing at Sherwood, a suburb of Brisbane, and employed at Brabant and Co.'s, Charlotte-street, city. Attacked March 1st;

reported as suspicious of plague after death on March 11th; physical signs of pneumonia noted by medical attendant on ninth day; rapid involvement of whole of left lung; died March 11th; no superficial bubo. The Commissioner ordered a post-mortem examination of the body. This and subsequent bacteriological examination of various organs obtained from the cadaver showed that death was due to pneumonia developing during an attack of septicæmic plague. The lungs contained large numbers of pneumococci and many plague bacilli. All precautions in connection with the case have been taken. No rats have been found on the warehouse premises. Guinea-pigs have been put in as a trap for rat-fleas. Plague in Rodents.—Destroyed—1455 rats, 175 mice; examined—1199 rats, 155 mice; infected, 1 rat, 1 mouse. Date of last infected rat, March 26th, 1908. No further case of plague has occurred at Brisbane during the period.

Tasmania.

Vital Statistics, for the year 1907.—Births.

—During the year 1907, 1681 births were registered in the registration districts of Hobart and Launceston. This shows a decrease of 132 births as compared with last year, and a decrease of 3.4 as compared with the average of the births registered in the last five-yearly period. To every 1000 of the population of the two districts the proportions of births registered were as follow:—For Hobart, 28.17, for Launceston 32.46, all 29.81 (including hospitals, asylums, gaols, etc. Deaths.—The deaths registered in 1907 in Hobart and Launceston numbered 930 (does not include 11 deaths on board vessels at sea, registered in Hobart); 30.54 per cent. of the whole took place in public institutions. The total number of deaths registered in the two districts during 1907 is 40 less than last year, and shows a decrease of 16.4 as compared with the average number of deaths registered during the last five-yearly period. To every 1000 of the population of the respective divisions the proportions of deaths registered were as follow:—Hobart 16.57, Launceston 16.37, all 16.49 (including hospitals, asylums, gaols, etc.). The deaths under five years of age numbered 210, or 22.37 per cent., of which 181 were under 1 year of age; the deaths between 5 and 65 years of age numbered 434, or 46.66 per cent.; and the deaths 65 years and upwards numbered 288, or 30.97 per cent. The chief causes of death were pneumonia 52, pulmonary tuberculosis 21, phthisis 42, general tuberculosis 12, cancer 39, premature birth 34, meningitis 15, heart disease (not specified) 99, old age 135.

HOSPITAL INTELLIGENCE.

Royal Alexandra Hospital for Children, Sydney.—At the last monthly meeting of the Board, Dr. Clubbe (president) in the chair, the house committee's report showed that there had been 97 patients admitted during the month, 96 discharged, 135 operations performed, 12 deaths had taken place, and that there were 84 patients remaining in the hospital. At the outpatients' department 2896 patients were treated. Satisfactory reports were received from the monthly visitors for the past month. A letter was received from Senator A. J. Gould, tendering his resignation as a member of the board. The resignation was received with regret. A letter from Dr. Richard Read was read tendering his resignation as a member of the board, and enclosing a cheque for £250 towards the funds of the hospital. It was resolved to invite Dr. Read to withdraw his resign-

nation and accept leave of absence, and that he be thanked for his generous donation. Plans for the nurses' home, approved of by the building committee, were considered by the board, and it was resolved that the plans be approved of, and that Messrs. Kent and Budden be instructed to prepare specifications and call for tenders. The annual meeting was held on April 2nd. Dr. Clubbe presided. The annual report stated that the percentage of mortality was 10.1. Of the 114 deaths which occurred, however, 40 were those of patients who were in a moribund condition when admitted, and died within 24 hours, and 16 deaths were from diphtheria, though 116 cases of this disease were treated. The total receipts for the year from subscriptions, donations, perpetual and annual endowments, legacies, etc., were £6186 4s 3d, which was £626 17s 6d more than for the previous year. £2364 16s 2d was received as subsidy from the Government, in addition to a special grant of £2000. Interest on investments produced £966 10s, the Hospital Saturday Fund £400, patients' contributions £585 4s (an increase of £138 18s 10d on the amount received during the previous year), and sundry other sources of revenue £90 17s 2d. The revenue available for the maintenance of the hospital was £993 11s 5d, and the expenditure for the year was £10,216 9s. The cost of maintenance for 1908 was estimated at £10,250. During the year the board borrowed, under a mortgage on the new hospital, the sum of £10,000, for the purpose of paying off the balance of the amount owing to the contractors for the new buildings. Of this sum £2200 was left in hand and, with the sum of £5000 specially voted by Parliament late last year, would be applied to the cost of building the nurses' quarters, the plans for which were now nearly ready. The erection of the nurses' quarters would also relieve the hospital from the payment of rent and taxes, amounting to £200 per annum, now incurred for the housing of the nurses' and servants.

Hobart Hospital.—At the ordinary meeting of the board of management of the Hobart General Hospital held last month the report of the visiting committee stated that, owing to grave irregularities having been discovered, the work of the main kitchen had been reorganised with a view of obtaining greater efficiency and more constant supervision over the receipt, preparation, and issue of all articles of dietary, and asked that the new arrangement be given a fair trial. The continuance of good health among the nursing staff was reported. The finance committee's report showed that the fees collected during the month amounted to £299 9s 3d, and that at February 29th £413 3s 6d remained on the books for collection; also that during the month of February 247 patients were treated. Of this number 127 were discharged, and 3 died, leaving in the institution on March 1st 70 males and 47 females. Of the 247 in-patients, 142 were from country districts; 87 were paying, and 160 were admitted free. The daily average number of occupied beds was 107, as compared with 109 for the corresponding period last year, and 87 in the previous year. In the out-patients' department 126 new cases were treated, and casualties numbered 34, making the total attendances 473. In the absence of Dr. Wolfhagen (chairman of the medical committee), Dr. Crowther tabled a report from that committee, recommending the appointment of a permanent nurse to the operating theatre, at a salary of £65. After some discussion the report was adopted.

Proposed Children's Hospital, Perth.—

The General committee of the children's hospital for Perth has resolved to proceed with the erection of a building. The lowest tender was between £7000 and £8000, which is very much more than the sum of money in sight for the undertaking. However, it has been decided to commence the building on a reduced scale. Provision will thus only be made at first for a working hospital of about 20 beds. The money at present in hand for the structure is some £4200 short of requirements.

Queen Victoria Homes for Consumptives,

N.S.W.—The annual meeting of subscribers to the Queen Victoria Homes for Consumptives was held last month. Sir Philip Sydney Jones, M.D., presided. The institutions controlled by the board, viz., the King's Tableland Sanatorium, and Thirlmere Sanatorium for Women, were reported to be doing good work. In referring to the Home for Consumptives being erected at Waterfall, the board said that the carrying into speedy effect of legislation respecting consumption by the Government, was likely to have a most important and beneficent bearing on the work of stamping out or reducing the prevalence of the disease, whilst the completion of the building at Waterfall, would enable the Government to find a home for the many unfortunate men and women who were too deeply stricken with the disease to profit by the curative treatment at the Queen Victoria Homes. At the Thirlmere Sanatorium 81 cases were admitted during the year and 68 discharged. Of these 83 per cent. were improved by treatment, and 10 per cent. remained unimproved. Tubercle bacilli were detected in the sputum of 95 per cent. of the cases treated. At the King's Tableland institution for men 100 cases were admitted and 103 discharged. Of those treated 91 per cent. were benefited and 9 per cent. remained unimproved. Dr. Sinclair reported that the open air or sanatorium method still held the field as the main basis of all treatment. At the same time, in suitable cases, continued observations had been made regarding the use of various tuberculin and serums as adjuncts to treatment. The latter had been regulated in their application by the use of both laboratory and clinical methods, and had undoubtedly proved of value in many cases. Wright's opsonic index method, had in his experience, proved of less value than anticipated in pulmonary tubercle, and in its present form could not, he thought, yet replace the clinical methods elaborated by various authorities during recent years. The balance-sheet indicated that a prosperous year had been passed through. The institution was paying its way, but as provision was being made for more patients, it was hoped the subscriptions would be increased to prevent the board from having to draw on its capital. The chairman moved the adoption of the report, and referred in terms of gratitude to the collection of £3000 by Mrs. Allen Taylor and other ladies associated with her during her term as Mayoress. Dealing with the medical report, he said it had been found difficult to induce labouring men and others possessing small means to enter the institution in the early stages of disease. The men kept on working as long as possible in the hope of supporting their families, but if they recognised that their chances of recovery were increased 100 per cent. by being treated in the early stages of illness, they would perhaps take another view of the matter. It was unfortunate that there were no means for providing for the families of unfortunate sufferers. A good deal was done in this direction in Germany, and a little in England. The public had the satisfaction also of knowing that the homes were

admirably adapted for the purposes for which they had been erected. Medical expert opinion, based upon full investigation, had shown that the Blue Mountains were amongst the finest places in the world for the treatment of consumption.

Balmain Hospital, Sydney.—At a special meeting of the board of management of the Balmain and District hospital, the president said the position of affairs was serious, so far as the finances were concerned. They were £400 to the bad, as compared with the previous year. With the additional accommodation provided, they would require £500 more revenue every year to enable them to carry on. Balmain had a population of 31,000, and if each home gave only a penny a week it would suffice to finance the institution. Dr. Carruthers pointed out that only £191 had been received from subscriptions last year. He thought the people would respond to an appeal for subscriptions if a canvasser waited upon them. Dr. Davidson considered the out-patient department should be made revenue producing. The existing system was often abused. It was decided to invite applications from ladies prepared to undertake the duty of canvassers, and also to approach the Mayor of Drummoyne with a view to calling a public meeting in that suburb in the interests of the hospital.

Newcastle Hospital, N.S.W.—At the annual general meeting of the Newcastle Hospital, the annual report of the committee was presented and adopted. It stated that the work of renovating the hospital throughout, under the supervision of the Government architect, was being carried out at a cost of £1274. In response to representations made by a deputation, the Chief Secretary had made a special grant of £500. The committee placed on record their appreciation of the valuable services rendered to the hospital by the honorary medical staff, and gratification was expressed with the manner the resident medical officer (Dr. H. Moran) had performed his duties. His term had been extended for 12 months. Unfortunately the finances during the year were in a parlous state, and the committee thanked the president for his efforts in arranging entertainments to raise funds. The medical report showed that 80 beds had been available for patients, and 1125 patients had been admitted during the year. Of these 845 had been discharged cured, 131 relieved, 33 unrelieved, 90 had died, and 50 remained in hospital on December 31. The attendance of outdoor patients was 3118, the number of individual ones treated being 641. The average number daily resident was 63·5, average death-rate per cent. of in-patients 8·2, and of in-patients who died 48 hours after admission 4·6. The average cost per patient per annum was £62 16s 5d, and total cost of outdoor patients' maintenance £64 2s. Medical cases totalled 544, and surgical cases 614, the average death-rate being 13 and 4 per cent. respectively. The number of operations performed under anaesthetics was 588. Male patients numbered 766, and female 392. The number of paying was 406, and free 752. The medical board referred to the necessity of having the electric light installed in the operating theatre, and also for the X-ray apparatus. The balance-sheet showed that subscriptions and donations amounted to £1026, and fees of patients £1665. The Government subsidy was £1018, and the two grants £1498. There was a bank balance of £512.

Launceston Hospital, Tas.—At a meeting of the board of the General Hospital last month the chairman reported that in connection with the debt of £1000 on the new operating theatre, two members of the board

had guaranteed to become responsible to the bank for the sum, provided they were secured against any loss by the making over to them of the interest on a prospective bequest, which the board would receive in the near future from what was known as the East Estate. The amount of that interest or legacy would be about £1300. A resolution embodying the idea of the proposal prepared by the board's solicitors was unanimously adopted. The chairman reported that for the eight months of the financial year there had been an increase of 205 patients over the same period of last year. The hospital would be short of funds, and the Chief Secretary would be notified.

Ipswich Hospital, Queensland.—The 48th annual meeting of subscribers to the Ipswich Hospital was held last month. The report referred to the resignation of Mr. A. F. Whitehill as treasurer, and to the appointment of Major W. T. Deacon in his stead. During the year, 626 indoor patients had been treated, compared with 598 in 1906, and the average duration of the stay of the patients was 27·4, compared with 29·1. The total revenue was £4569 5s 5d, an increase of £314 9s 4d compared with the previous year, and the expenditure £3824 8s 4d, an increase of £509 1s 7d.

Women's Hospital, Crown-street, Sydney.—At the annual meeting of the subscribers to the Crown-street Women's Hospital held last month, the president (Judge Backhouse), in moving the adoption of the report and balance-sheet, said that the honorary secretary was retiring, and it was proposed to appoint a paid secretary in his stead. Everyone there well knew the work which Mr. David Fell had done for the hospital. He had been secretary ever since it was founded in 1893, and there was no one to whom it had owed more. Happily, Mr. Fell would continue with them as a director. The number of patients treated was as follows:—Indoors, 420, being 296 obstetric cases; discharged during the year, 275; died, 3; remaining on December 31, 18. Births.—Male, 131; females, 117. 124 gynæcological cases, discharged during the year, 117; died, 3; remaining on December 31, 4. The number of the deaths was due to the concurrence of pneumonia with other troubles. The total deaths since the hospital was founded are 37. Outdoor Department.—1603, being 458 obstetric cases (births, male 215, female 230, deaths nil); 1154 gynæcological attendances (564 patients). Total cases, indoor and outdoor, 2023. During the year 380 visits were paid by the resident medical officer, 101 by medical students, 1010 by district nurses, and 4965 by various nurses from the institution, giving a grand total of visits to patients at their homes of 6456. Sixty-five pupil nurses were at the hospital during the year; 29 obtained certificates, and 32 remain. Dr. Jessie Aspinall recently became resident medical officer. Receipts during the year were £2818, of which the Government subsidy was £710; £1022 nurses' board and lecture fees, patients contributed £176, and subscriptions and donations £821. The expenditure was £2803. The site of the present hospital premises, City View, was bought during the year, chiefly through the generosity of Mrs. Hugh Dixon, who gave £1000. The price was £6500, of which £5000 have been secured by a mortgage at 4 per cent. A general appeal is being made to get the hospital clear of debt. The Government has offered £500 towards the building.

Dr. A. B. Steele, of Clifton-Scarborough, has been elected on the medical staff of the Bulli Cottage Hospital, N.S.W. Very substantial support is given to the hospital from the Clifton end of the district.

MEDICAL NOTES.

The resolution approving of the establishment of municipal dispensaries, which was carried in the Sydney City Council on February 4th, has been rescinded by the same body on division by 11 to 9.

The Council of the Women's College within the University of Sydney, at its meeting last month, passed a unanimous vote of thanks to Mrs. Janet Coutts for her gift of £600 for a bursary fund to assist meritorious students to finish their course in residence.

The Hobart Creche.—The annual meeting of the Creche Association was held last month. The report submitted pointed out that the new house in Macquarie-street, to which the association had moved, was not in as convenient a position as was the original cottage, but the accommodation was better. The nursery and sleeping room were both good, airy rooms, opening on to a verandah, on which the children spent much of their time. Three of the rooms had been let, which brought the rental down to a sum which was only four shillings in advance of that which had been paid for the smaller premises. Most of the children taken during the year which had closed, had been infants under two years of age. Except in cases where the mother was ill, women seldom sent their older children. The numbers during the year had not increased as much as the committee had hoped. The record was held for February, 1907, when the number stood at 216. They abruptly fell in March to 52. The attendances for the year amounted to 1,173 individuals, as against 1,020 the year before, an increase of 153 only. Some of the babies were in the creche every working day for six months or even a year. These had made good progress, but some which had been in for a few days only were apparently suffering from unsuitable feeding. The Treasurer's report showed receipts amounting to £90 during 1907, and expenditure of £80, with a balance of £10.

PERSONAL ITEMS.

The David Syme research prize, for the best original scientific work done in Australia during the last two years, has been awarded to Dr. Basil Kilvington, M.D., M.S., of Camberwell, Victoria, for his researches into the conditions of the healing and degeneration of injured nerves.

The hon. medical staff of the Royal North Shore Hospital of Sydney gave Dr. B. J. Newmarch, the senior member of the staff, a complimentary dinner on Thursday, March 5th, at Paris House, to wish him *bon voyage* prior to his leaving for England. Dr. B. J. Newmarch has been granted nine months' leave of absence by the committee of the Royal North Shore Hospital of Sydney.

Dr. H. G. Bennetts, formerly of Temora, N.S.W., and later of Neutral Bay, Sydney, has resumed the practice of his profession at "Alton," Esplanade, Manly, Sydney.

Dr. Mackin, of Wellington, N.Z., has returned, after a tour of the world.

Dr. Elizabeth H. B. Macdonald, M.A., M.D., of Dundee, who, in addition to being the first lady graduate of St. Andrew's, was lately assistant professor of midwifery and gynaecology at her university, and was also a Carnegie Research Scholar, has commenced the practice of her profession at Wellington, N.Z.

At the Masonic Hall recently the members of the Melbourne University Masonic Lodge, in conjunction

with those of the Combermere Lodge, under the English Constitution, entertained Dr. F. W. W. Morton at a complimentary dinner prior to his departure for England on a holiday trip. In the Fitzroy Town Hall on March 17th at a complimentary send off he was presented with a travelling bag.

Dr. Lang, who has left Corowa, N.S.W., for a six months' trip to Scotland, was tendered a smoke social by the various sporting clubs prior to his departure.

Dr. Stevenson, after a residence of about 18 years in Petersburg, S.A., has sold his practice to Dr. A. Goode, of Terowie, with a view to settle in Kangaroo Island. On March 7th a number of Dr. Stevenson's friends met in the committee room of the Town Hall for the purpose of wishing him good-bye and presenting him with a dressing-case.

Dr. Malcolm L. Scott, who for the past two years has been assistant to Dr. Powell, at Kadina, S.A., has left on a trip to London as surgeon of the fine Blue Anchor liner Geelong. Dr. Scott hopes to spend a year or so in England.

The committee of the Kennedy Hospital, Bowen, Queensland, have agreed to increase the medical officer's salary by £100 per annum in order to retain his services. Dr. Murray had been offered an appointment at Chillagoe, Q.

Dr. W. M. Campbell has resigned his post as hon. physician of the Adelaide (S.A.) Children's Hospital, after having been connected with that institution since its foundation. Dr. Campbell has been appointed consulting physician to the institution.

Dr. Ventry Smith, who is leaving Grafton, N.S.W., was entertained by friends at dinner on March 21st, and presented with an address.

Dr. Gregory Sprott has been appointed a member of the Court of Medical Examiners, Tasmania, *vice* Dr. L. A. Holden, resigned.

Dr. M. McIntyre Sinclair, who has been medical superintendent of the Queen Victoria Homes for Consumptives, N.S.W., will shortly relinquish his position to engage in private practice.

Dr. Jones and Dr. Bell have resigned their positions on the hon. medical staff of the Auckland Hospital.

Dr. Diamond, of Christchurch, N.Z., recently met with a serious motor accident. The car collided with a tramcar and was reduced to splinters; the doctor had his jaw broken, and the other occupant of the motor received injuries that caused his death shortly afterwards.

Dr. John Borthwick, of Zeehan, Tasmania, has left for England.

Dr. Gordon Craig, of Newtown, Sydney, purposes leaving shortly on a tour through England and Europe, returning *via* America by the end of December.

Dr. Brown Craig has succeeded to Dr. Gordon Craig's practice in Newtown.

Dr. Walter Spencer has been appointed official representative in Australia of the "British Science Guild." Address, Royal Society's House, 5 Elizabeth-street, Sydney.

Dr. H. E. Astles has resigned his position as hon. physician of the Perth Public Hospital, W.A.

Dr. Young was recently presented with a purse of sovereigns by the public of Milton, N.S.W. Dr. Young, after 15 years' practice there, has sold to Dr. Graham, of Sydney. He was also presented with an illuminated address by Oddfellows' lodges and an apron and address from the Masonic Lodge. Mrs. Young was presented with a set of silver cake forks by the committee of the Benevolent Society, of which she had been secretary from the inception of the society.

Dr. B. B. Ham, Commissioner for Public Health for Queensland, who is an inmate of the Victoria Private Hospital, was, on April 3rd, successfully operated upon for appendicitis. The latest report was that he was progressing satisfactorily.

Dr. H. Swift has been elected to the board of management of the Children's Hospital, Adelaide, to fill the vacancy occasioned by the retirement of Dr. W. M. Campbell.

Dr. Owen Paget has returned to Fremantle from a prolonged trip throughout the East, America and Great Britain.

Dr. H. Darby Thomas, of the Melbourne University, has completed his course at the London Hospital, and been appointed house surgeon of the Royal Surrey County Hospital, England.

Dr. Herbert Marks, of 235 Macquarie-street, having relinquished general practice, has resigned his position of hon. assistant surgeon to the Sydney Hospital, in order to devote himself exclusively to Ear, Nose and Throat work.

Dr. Magee who has disposed of his practice at Penola, South Australia, was entertained at a farewell social of residents on April 1st, and presented with a gold watch. Dr. Magee is undertaking a trip to Japan and New Zealand. Dr. Curtis succeeds Dr. Magee at Penola.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Browne, Elsie Forrest, M.B., Ch.M., to be junior resident medical officer at the Sydney Medical Mission.
Dunlop, Dr., to be Medical Officer to the Lismore Hospital.
MacCulloch, Stanhope H., M.B., and Bowker, Cedric V., M.B., to be Acting Government Medical Officers for Sydney, to examine applicants for pensions.
Griffiths, Ernest Edward, L.R.C.P. (Edin.), L.S.A. (Lond.), M.R.C.S. (Eng.), to be Government Medical Officer and Vaccinator at Bellingen, *vice* Dr. P. J. Godfrey, resigned.
Cotton, G. R. C., M.B., (Syd.), to be Medical Officer to the Walgett Hospital, *vice* Dr. H. L. Willis, resigned.
The following have been appointed Resident Medical Officers to the Royal Prince Alfred Hospital, Sydney:—E. A. Brearley, M.B.; G. A. Brookes, M.B.; H. D. Matthews, M.B.; K. St. Vincent Welch, M.B.; C. J. Weedon, M.B.; G. L. Tomlinson, M.B.; F. G. N. Stephens, M.B.; J. S. MacFarlane, M.B.; A. W. Fox, M.B.
Drs. Robert Dick (Newcastle), R. A. Fox, William B. Kerr, and A. E. Scott have been appointed Acting Government Medical Officers for the purposes of the Invalidity and Accidents Pensions Act.

VICTORIA.

Latram, L. S., M.D., B.S., to be Acting Honorary Physician to Out-patients at the Melbourne Hospital.
Strong, R. H., to be Honorary Physician to In-patients.
Scott, Dr. J. D. K., of Brunswick, has been appointed to a position on the out-patients honorary medical staff of the Children's Hospital.
O'Connor, Dr., to be Health Officer to the Shire of Omeo, *vice* Dr. Kilpatrick, resigned.
Baxter, J. Morehead, M.B., to be Honorary Oculist and Aurist to the Austin Hospital.
Lyons, Martin Moylan, M.B., to be Acting Officer of Health for the East Riding of the Shire of Portland, during the absence on leave of Gerald Edgar Tom Haydon, L.S.A.
The following gentlemen to be Officers of Health for the districts set opposite their names, viz.:—
Griffith, James De Burgh, M.D., Frankston and Hastings, *vice* Sidney Plowman, F.R.C.S.
Murphy, William Patrick, M.B., Goulburn, *vice* Robert George Reid, L.R.C.P., resigned.
Walker, William James Alexander, M.B., Kerang, Quambatook district, *vice* Charles Joseph Oliver, M.B.
Legge, Frank Robert, M.B., Swan Hill, *vice* Henry St. John Mitchell, L.R.C.P., resigned.

SOUTH AUSTRALIA.

Dunstone, Leonard John, M.B., of Lamerook, to be a Public Vaccinator.
Hayward, W. T., M.R.C.S., and Rogers, R. S., M.D., to be Members of the Board of Management of the Adelaide Hospital.
Newland, Henry Simpson, F.R.C.S., to be Honorary Radiographer in the Adelaide Hospital.
Gunson, J. B., M.B., B.S., to be Hon. Physician to the Children's Hospital, Adelaide, *vice* W. M. Campbell, resigned.

WESTERN AUSTRALIA.

Beveridge, Dr. W. J., to be Acting Resident Physician to the Kalgoorlie Hospital, *vice* Dr. H. D. N. McKenzie, resigned.
Hope, Dr. J. W., to be Acting Assistant Medical Officer at the Fremantle Hospital for the Insane, during the absence on leave of Dr. W. E. Blackall.
McGlynn, Dr. James, to be Acting District Medical Officer, Quarantine Officer and Public Vaccinator at Busselton, during the absence on leave of Dr. W. Farmer.
McKenzie, Dr. H. D. N., to be Acting District Medical Officer and Public Vaccinator at Cue, during the absence of Dr. J. H. Saunders.
Ambrose, Dr., to be Physician, and Dr. F. Andrews to the position of Assistant Physician, on the Honorary Medical Staff, Perth Public Hospital.

TASMANIA.

Campbell, Maud, M.B. (Melb.), to be Junior Resident House Surgeon, Launceston Hospital, *vice* Dr. Sweetman, resigned.

NEW ZEALAND.

Meinhold, Maximilian, Bonn, to be Port Health Officer for the Port of Kaipara.
The following persons have been appointed Public Vaccinators for the districts set opposite their names respectively:—
Mandi, Charles Leopold, L.R.C.P., for the district of Foxton, *vice* Dr. Bennett.
Brugh, James, M.B. and Ch.B., L.R.C.S. (Edin.), for the district of Gore.
Watt, Thomas Newlands, M.R.C.S. (Eng.), for the district of Nokomai and Switzers, *vice* Dr. Lillie, resigned.
Hallwright, Guy, M.R.C.S. (Eng.), to be a Port Health Officer for the Port of Westport, *vice* Dr. Murdoch Mackenzie, absent on leave.
Thompson, Dr. A. C., to be Junior Resident Medical Officer to the Auckland Hospital.
Zobel, Samuel, M.B., B.S., M.D., for the district of Te Awamutu.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

VICTORIA.

Binney, Constance Clarice, M.B. (Syd.), 1906.
Merrillees, Crichton Raoul, L.R.C.P. & S. (Edin.), 1907.

QUEENSLAND.

Cummins, Richard Howard La Barte, L.R.C.P. and S. (Edin.), 1907; L.F.P.S. (Glas.), 1907.
Horn, Alexander, M.B., B.S. (Aberd.), 1907.
Miller, Robert Christey, M.B. (Syd.), 1908.
Longran, Henry Gerald, M.B., B.S. (Melb.).
Almaden, Pinchin Joseph Leonard, L.R.C.P., L.R.C.S. (Edin.), L.F.P.S. (Glas.)
Brooke, Baron, M.R.C.S. (Eng.), M.R.C.P. (Lond.).
Harcourt, Averyh, M.B., C.B. (Edin.).

NW SOUTH WALES.

Browne, Elsie Forrest, M.B. (Syd.), 1908.
Rodway, Frederick Arthur, M.B. (Melb.), 1903; B.S. (Melb.), 1904.
Deck, Horace Leigh, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1906.
Paul, James Hogg, M.B., B.S. (Glas.), 1906.
Cotton, George Reginald Cope, M.B. (Syd.), 1908.
Bottrell, Edwin Horace, M.B. (Syd.), 1908.
For Additional Registration:
Wylie, Mary Wilhelmina, Ch.M. (Syd.), 1906.

TASMANIA.

Stackpole, Adam Richard, L.R.C.P., L.R.C.S. (Edin.), 1888.
Webster, Leonard Clarke, L.R.C.P., L.R.C.S. (Edin.), 1906; L.F.P.S. (Glas.), 1906.

BIRTHS, MARRIAGES, AND DEATHS

BIRTHS.

ADAMS.—March 24, at Southsea, the wife of Surgeon H. C. Adams, R.N.—a son.
FYFFE.—March 20th, at "Linden," Gore-street, Fitzroy, Victoria, the wife of G. H. Fyffe, M.B., Ch.M.—a son.
MORGAN.—March 10th, at Hamilton, Tasmania, the wife of Dr. E. H. Morgan—a son (stillborn).
YOUNG.—March 17th, at her residence, "Keera," Clifton, Darling Downs, N.S.W., the wife of E. H. Young, M.B., Ch.M. (Syd.)—a daughter.
REID.—March 17th, at "Yancannia," Church-street, Richmond, the wife of Dr. Peter Reid—a son.

MARRIAGES.

CRAIG—BENSON.—November 5th, 1907, at Durban, South Africa, Robert, eldest son of the late Robert Craig, M.B., C.M., Glen U'quhart, Inverness-shire, to Charlotte Mary, only daughter of the late Dr. Benson, of Adelaide, South Australia.

CURTIS—FORMBY.—March 3rd, at Christ Church, Strathalbyn, South Australia, by the Rev. H. Wyllie, Dr. Albert Curtis, of Adelong, N.S.W., to Norah, youngest daughter of the late W. H. Formby, Metalu, Langhorne's Creek, South Australia.

DEATHS.

GETHING.—March 15th, at Euston-terrace, Croydon, Jane Trevanian, widow of the late Robert Gething, M.D., of Port Adelaide, South Australia, in her 76th year.

MUIR.—March 24th, at the residence of her daughter (Mrs. Blance), Mount Pleasant, South Australia, Johannah, widow of the late Dr. J. B. C. Muir, of Tungkillo, aged 73 years.

HEFFERNAN.—March 31st, at 8 Brunswick-street, Fitzroy, Melbourne, Edward Bonaventure Heffernan, M.D., Ch.B. (Melb.), aged 56 years.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BOOKS RECEIVED.

A Text-book of Minor Surgery. By Edward Milton Foote, M.D., with 407 illustrations. Price, 21s net. New York and London: D. Appleton & Co. Sydney: Angus & Robertson.

The Experimental Prophylaxis of Syphilis. By Dr. P. Mensonneuve. Translated, with an introduction, by F. L. De Verneil, M.B., M.R.C.S., L.R.C.P. Bristol: John Wright and Co. Price, 4s net.

Minor Maladies and Their Treatment. By L. Williams, M.D.: M.R.C.P. Second edition, revised and enlarged. London, Bailliere, Tindall & Cox. Sydney: L. Bruck. Crown 8vo. Price, 5s net.

The following 5 books have been received from Messrs. W. B. Saunders, Philadelphia, per Mr. James Little, of Melbourne.

1. Reference Handbook of Obstetric Nursing. By W. R. Wilson, M.D. Illustrated. Price, 5s 6d.
2. Hospital Training, School Methods and Head Nurse. By Charlotte A. Aikens. A 12mo of 267 pages. Price, 6s 6d.
3. Diseases of Children, for Nurses. By R. S. McCombs, M.D. Illustrated. Price, 10s.
4. The Principles and Practice of Modern Otolology. By J. F. Barnhill, M.D. Octavo, of 575 pages, with 305 illustrations. Price, 24s.
5. The Treatment of Fractures, with Notes upon a Few Common Dislocations. By C. L. Scudder, M.D. Octavo of 635 pages, with 854 illustrations. Price, 24s.

Modern Medicine: Its Theory and Practice: in Original Contributions by American and Foreign Authors. Edited by William Osler, M.D., and Thomas McCrae, M.D. Vol. I. and II. Philadelphia and New York: Lee Brothers and Co. Sydney: L. Bruck. Price, 24s per volume.

Gonorrhoea: Its Diagnosis and Treatment. By F. Baumann, Ph.D., M.D. New York and London: D. Appleton & Co. Sydney: Angus & Robertson. Price, 6s net.

Aids to Surgery. By Joseph Cunningham, M.B., B.S., F.R.C.S. (Eng.). Foolscap 8vo. Price, cloth, 4s net. London: Bailliere, Tindall & Cox. Sydney: L. Bruck.

The Pocket Anatomy. By C. H. Fagge, M.B., M.S. (Lond.). F.R.C.S. Sixth edition; foolscap 8vo. Price, 3s 6d net. London: Bailliere, Tindall & Cox. Sydney: L. Bruck.

Proceedings of the Royal Society of Medicine. Edited by J. Nachbar, M.D. London: Longmans, Green & Co. Price 7s 6d net.

Durham University Calendar, with Almanac, 1907-08. Durham: Thomas Caldcleugh & Son.

The Melbourne University Calendar, 1908. Melbourne: Ford and Son.

Merck's 1907 Index. New York: Merck & Co.

Diseases of the Nose and Throat. By H. Tilley, B.S. (Lond.), F.R.C.S. (Eng.). Third edition: Demy 8vo. Price, 14s net. London: H. K. Lewis.

First Aid to the Injured and Sick: An Advanced Ambulance Handbook. By F. I. Warwick, M.B. (Cantab.), and A. C. Tunstall, M.D. Fifth edition. Price, 1s paper, 2s 6d cloth. Bristol: J. Wright & Co.

Protozoa and Disease, comprising Sections on the Causation of Smallpox, Syphilis, and Cancer. By J. Jackson Clarke, M.B. (Lond.), F.R.C.S. Medium 8vo. Price, 7s 6d net. London: Bailliere, Tindall & Cox. Sydney: L. Bruck.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

The Editor, "American Medicine," New York City; Dr. R. A. O'Brien, Melbourne; the Lambert Chemical Co., St. Louis; Messrs. W. B. Saunders & Co., Philadelphia; No. Dust Manufacturing Co., Sydney; Dr. G. H. Skinner, Casterton, Victoria; Dr. C. Fetherstonhaugh Stan Thompson, Victoria; Dr. Walter Spencer, Sydney; Dr. E. Robinson, Auckland; Mr. A. Marten, Perth, W.A.; Dr. M. Crutchfield, Boulia, Queensland; Messrs. Bailliere, Tindall & Cox, London; Dr. E. S. Stokes, Sydney; Dr. B. B. Ham, Brisbane; Dr. A. B. Brockway, Brisbane; Dr. J. Lockhart Gibson, Brisbane; Dr. Gordon Craig, Sydney; Dr. Brown Craig, Sydney; Dr. Guthrie Rankin, London; Tasmanian Government Statistician's Report, 1907, Hobart; Mr. A. Ollé, Sydney; the Secretary Health Department, Sydney; Dr. Leonard Bickle, Adelaide; Dr. P. Heyman, Lowood, Queensland; Dr. J. Ashburton Thompson, Sydney; Dr. F. G. Griffiths, Sydney; Mr. G. T. Taylor, Hobart; Dr. J. S. Purdy, Auckland, N.Z.; Mr. L. Bruck, Sydney; Mr. G. Arnold, Sydney; Messrs. Donald Ross & Co., Sydney; A.M.P. Society, Sydney.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON)
MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerio Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 320.

SYDNEY, MAY 20TH, 1908.

VOL. XXVII., No. 5.

NOTES ON LEPROSY.

Abstract of a lecture delivered at the Polyclinic and Post-Graduate Medical School, Chenies-street, London, on November 7th, 1907.

By J. Ashburton Thompson, M.D. (Brux.), D.P.H. (Camb.), Hon. Fellow of the Incorporated Society of Medical Officers of Health; Hon. Member and Fellow Royal Sanitary Institute; Fellow of the Royal Society of Medicine; Permanent Head Department of Public Health, Government of New South Wales.

LEPROSY is reckoned among the infective processes. The causes of such processes are specific and are susceptible of demonstration; many others have been demonstrated, but not that of leprosy. We have not yet any sufficient proof that the bacillus lepræ is indeed the cause of the disease process, although we infer that it is so from the frequency with which it is observed in the diseased tissue. This inference is probable and at some future date may be justified by experimental observation, but for the present we should be careful not to mistake that probable inference for a fact. We should remember, also, that the bacillus is not to be found in all of those lesions which, clinically and pathologically, denote the leprous process. This, I believe, is well known. I have myself recently recorded¹ a case which was beyond doubt one of leprosy in the clinical form commonly distinguished as the nodular or tuberculous; and yet efforts repeatedly made during a whole twelvemonth to demonstrate the bacillus in the puffy swellings, tumours and infiltrated maculæ accessible from the surface completely failed. But more than that, the nerves were markedly involved, as in that clinical form they always are more or less involved, and the acromial branch of the superficial cervical plexus—a very slender cutaneous nerve—was enlarged throughout its course to the size of a cedar pencil. Two portions of it were excised at different points, hardened, and cut by a highly competent pathologist, but no bacillus and no acid-fast granule, such as might have been the remains of a bacillus, could be found. The specimens could be recognised as sections of nerve tissue, although the proper structure had almost

completely disappeared, and the sole apparent constituents of the change were those usually seen in leprous invasions, namely, extensive round-cell infiltration, some spindle cells, and fibrosis. Hence, while we have for the present no classical proof that the bacillus lepræ is the *causa causans* of leprosy, occasionally cases are met with clinically in which, according to common experience, the bacillus should be easily demonstrable, and in which, nevertheless, it cannot be found.

Now, let us provisionally adopt the current view that the bacillus lepræ is the *causa causans* of leprosy. On that assumption it would appear that every leper, or at least every leper who discharges and scatters leprosy bacilli, must be a danger to others: But this does not follow; and observed facts concerning the prevalence and spread of leprosy, too familiar to need mention here, show that some third factor is indispensable, even after the assumption that the bacillus lepræ is the essential cause of leprosy has been made. We do not know whence the bacillus lepræ proceeds. If it have a habitat outside the human body that has not yet been discovered, while if it have no habitat but within the human body (so, presumably, that the sick must constitute the means by which the disease is maintained and spread), then it is quite evident, I think, that some undiscovered *tertium quid* is necessary. What the nature of that factor may be cannot be surmised; it may be essential or it may be merely incidental. For after those two points have been conceded—after having assumed, in accordance with the common opinion (a) the causality of the bacillus and (b) its communicability from the sick to the healthy—there are other considerations which must be entertained before a complete theory of the maintenance and spread of the disease can be framed. In the laboratory it is enough to possess the cause of a disease and a susceptible animal to reproduce the disease with certainty. Yet not quite enough either. To disregard other factors at all events the cause must be in a suitable state, and it must be suitably introduced into the body. In the laboratory these conditions are under control, but in nature we have to do with the

spread of the disease under conditions which for the most part are not merely uncontrollable but very variable. Practically it is not sufficient to have the cause in conjunction with a susceptible subject. In other diseases this is observed daily, and it must also be the case with leprosy. Here epidemiological methods can render valuable assistance, but only on condition that they are employed with great care. The observations must be accurate; it is equally important that they should be complete, and the data thus acquired must be scrupulously scrutinised, and criticised by the observer himself even with hostility. Great number of cases is not merely unnecessary, but is a serious obstacle to clear vision. I have endeavoured to adhere to these principles in investigations which I have carried out during a good many years past in New South Wales.

Not to detain you too long, I will merely say that the result of these inquiries was expressed by me about ten years ago in the following terms. In New South Wales it appears, on the one hand, that avoidance of association with any leper is not enough to avoid attack; while on the other hand close association with lepers is a matter of very little practical importance at most. I have seen no occasion since in the facts further observed in that part of the world to alter that provisional conclusion, and I still adhere to my opinion that on the whole the available evidence makes it more probable that the infection of leprosy is received by man from his environment rather than from the sick. I think, also, for reasons which there is not time to enter upon on this occasion, that the infection may very probably be received by ingestion, but I have no good grounds for expressing a strong opinion that it is so received. While thus regarding with some favour the suggestion that the infection may be taken by ingestion, I do not forget the histological observations recorded by pathologists, and especially by Voit, of St. Petersburg, and the inference drawn from them that the infection is taken by the skin and is essentially an ascending neuritis which leads ultimately to generalised infection of the body. This simple view is not completely reconcilable with all of the clinical data. In the first place, signs which might be fairly indicated by the phrase "initial sore," are almost always wanting, and when observed, as very rarely they are, their significance in relation to the path of entry is far from clear.

Secondly, at whatever stage of illness cases come under observation, alterations in the greater accessible nerve trunks, in the facial, ulnar, median, peroneal nerves, etc., may always be detected by the competent observer in the shape of alterations of form, or of consistency, or of sensitiveness, or of all three together. Thirdly, almost always there is absence of correspondence between the distribution of areas of insensibility and the areas supplied by the altered nerve trunks. Now, although this would seem to point directly towards a local invasion of nerve-endings in the skin, if the latter really indicated the path of entry—if the nerve-trunks became infected by a neuritis which ascended to them from the nerve endings—the correspondence should be perfect. Without laying stress on that point, however, it is easy to cite another of indisputable force; it is that in cases of almost universal leprous oedema-tactile pressure, heat, and pain sensations sometimes appear to be perfectly normal, even after four or five years of manifest disease². Analogous observations which I have made tell against the hypothesis that the infection is commonly received by the nasal mucous membrane. This is often affected, it is true, and the bacillus can often be demonstrated in its secretions. But cases are not uncommon in which no evidence of such affection can be got. Not only can the secretions not be made to yield the bacillus, but no signs of leprosy of the nares (such as frequent and easily excited bleeding, or repeated blocking of the nose as from catarrh) have in such cases ever been present. But supposing them to be, or to have been present, it is still quite impossible to ascertain whether they were the first signs of illness. My experience is that they supervene earlier or later in the course of illness, and only according to the patient's inaccurate observation seem sometimes to have preceded the obvious signs of a generalised infection.

If the foregoing remarks have any value it lies entirely in abstinence from expression of positive opinions, and even of any strong conviction, in a case where accurately ascertained facts to support them are sadly deficient. I will conclude on this head, therefore, by noting that the successful inoculation of apes, which has recently been recorded by Nicolle in the *Annals of the Pasteur Institute*, hold out hope that a firm step in our knowledge of the etiology of leprosy may soon be taken, should they stand the test of repetition by other observers.

And now I would turn to treatment. I wish to say a word on my experience with chaulmoogra oil, and then draw your attention to a method recently published by Deycke Pacha. As to chaulmoogra oil it is generally considered to be the only medication internally administered in which any hope of effecting a cure lies. I have myself expressed the opinion that it almost always does some good; but I must add that in my hands its favourable effects have been limited to a slight improvement. That improvement has been in the patient's general health mainly, and in his feelings; it has been such that I could not tell whether it was due to the medicine or to the stimulus of a renewed hope of recovery. In either case it was practically unimportant in relation to anything which could be regarded as towards cure. It has sometimes been accompanied by very slow and very slight improvement in the visible manifestations of the disease; this was no more than that which usually occurs spontaneously from time to time, and has not set in after commencement of this medication so constantly as to afford good ground for supposing that it was due to the drug. For two years past I have been investigating this treatment with some accuracy¹, and I hope in a year or two more to record a series of cases in intelligible form from which the reader may judge of the results for himself. I fear they will confirm the experience of the two years which have elapsed already expressed above. I have, indeed, recorded one case of recovery under chaulmoogra oil. I cannot now enter into the details, which may be found in "Leprosy" and in the *Lancet*⁴. They should be carefully perused in order to judge in how far my opinion that in that instance the recovery was most probably due to causes inherent in the patient, and independent of the medication, is justified by the record.

The lecturer then described briefly the investigations recorded in the *Deutsche Medizinische Wochenschrift*, 1905 and 1907, by Deycke Pacha and Raschad Bey, showing slides of the bacterium utilised by them, and exhibiting many skiagraphs and photographs of patients taken by Deycke Pacha before and after treatment with "nastin," a substance extracted from the bacterium⁵.

1. Report, New South Wales; Government Printer, 1906.
2. Ibid. 3. Loc. cit., supra. 4. The *Lancet*, December 1st, 1906, p. 1508. 5. This substance may be procured from Messrs. Kalle & Co., manufacturing chemists, of Biebrich a.R.

NOTES ON THE TREATMENT OF ASTHMA AND SOME OTHER CHEST TROUBLES, WITH ESPECIAL REFERENCE TO OUTDOOR SLEEPING.

By E. Sandford Jackson, M.B., Ch.B. (Melb.).
Brisbane.

WHEN I first began the treatment of asthma I pinned my faith to an old mixture in the Hospital Pharmacopœia entitled *Mist. æth. et Lobelia*, whose name sufficiently indicates its composition. With potass. iod. gr. v. added to this I used to think myself well armed, and if a patient in the out-patient department came saying that he was not better for taking it I used to believe that it was because he had not taken it regularly every four hours. Gradually, however, I got to think more of the pot. iod. in the mixture than the rest of the ingredients, and to know that 10 or 30 grains of that drug were better than anything in the way of drugs, and that the latter dose taken at evening at least cut short the attacks that would have followed in the night. I have always been a great devotee to and believer in fresh air. A long experience in surgical diseases in hospital with opportunities for putting cases out into the sunlight and fresh air during the daytime long ago convinced me of their efficacy, and that no hospital was nearly perfectly constructed unless it admitted both these essentials to nearly every bed in it.

I have never been able to understand why, in this climate of ours at any rate, draughts should have any other than a good effect. I have for 25 years entirely disregarded them personally, unless while sitting in them I feel cold; and I have had sufficient experience of tent hospitals, which are draughty enough, to be able to say that so far as results go in mortality they are not to be beaten in the treatment of almost every disease, and especially in those accompanied by suppuration, in whatever situation. Eight or more years ago, when open-air treatment of phthisis began to have attention drawn to it, a patient with asthma came to consult me. He wanted to know whether I would recommend change of air, and if so whether to the seaside or to Toowoomba. Now, one of Queensland's Governors in my time had been an asthmatic, and it had been said that he could only live free from his trouble in Toowoomba. In Brisbane he was always a sufferer. I had often in consequence sent patients to Toowoomba and the Downs generally, but never

with the good results derived by the more celebrated patient. I told this patient that as he had friends to stay with in and was anxious to go to Southport I would recommend that place. He went thither and returned in a month quite well. He told me that at first, in spite of medicine, his asthma was as bad as ever. It was hot weather, and one night, as he put it, he could stand being inside no longer and went outside to get more air and be cooler. That night he was free from asthma, and so the next night he began outside and was quite free. For the rest of his stay he was free from asthma, except one night when it rained and he had to come in off the verandah. On that night only his asthma returned.

Since seeing that patient I have always urged my asthmatics to give themselves as much fresh air as possible and to get on the verandah at nights and to disregard draughts; this with extremely good results. In common with others I have made the discovery that it is not enough to keep doors and windows open and sleep in a room; much better results are to be obtained by sleeping on the verandah; and though I have seen no reason assigned for this fact, noticed by others, I venture to suggest that it is due in part to the fact that the verandah is more frequently and fully sunlit, so that the asthma and catarrh microbes are destroyed. You will find sometimes one member of a family constantly suffering from colds, and sometimes you will find that one occupies the only room that gets no sunlight. There is, however, another reason that applies. In hot weather there is a much greater tendency to perspire when sleeping indoors. Even when doors and windows are wide open perspiration will constantly bathe an individual who can sleep out of doors without perspiring at all. To have one's skin constantly bathed in perspiration is not good. Perhaps this is one of the only conditions when a "draught" (of air) is risky. But whatever the explanation may be of the difference between the verandah and the open bedroom, it is quite certain that asthmatics who have resisted other treatments will very frequently yield to treatment on the verandah; often no other treatment is required. Treatment of nasal conditions affords relief in many cases. Personally I have tried cauterising turbinates and septa; I have removed polypi, straightened septa, cut off spurs, and removed adenoids, etc., in asthma, and am of opinion that benefit has

resulted in consequence, and especially perhaps after straightening septa and removing spurs. I think I have never straightened a septum without great relief to the patient's asthma, and the same thing applies to removal of a spur. Sometimes the relief is apparently complete and permanent. The great things necessary seem to be to provide sufficient room to breathe through the nostrils and to cleanse the nasal cavities of any condition distinctly microbic, such as discharge of any kind.

I am persuaded that over-sweating is one of the causes of asthma, as well as of other chest diseases, and it is important to watch the amount of clothing that patients wear, just as much to prevent its being excessive as for the opposite reason.

As to exercise in the treatment of asthma: It is obviously a difficult matter and requires careful consideration. It is impossible that a patient with a bad attack of asthma (acute) should be able to take any at all. A climb up a few stairs results in great dyspnoea; a walk of 100 yards on the flat similarly is too much for some. But in chronic cases that are improving it is possible to increase the amount of exercise daily, and my friend, Dr. Stewart, of Dalby, writes me that he finds skipping an excellent exercise for patients, and certainly I can testify to his good results in cases that I have sent to him.

As to diet: It is easy to say with the textbooks that the matter of diet requires attention. It is difficult to say in what way attention should be given. Dr. Stewart finds benefit, with Dr. F. E. Hare, in curtailing the amount of carbohydrates, and so have I. But in the diet for asthma, as for every other disease involving dyspnoea, it seems to me that the most important consideration is bulk. A diet consisting of proteids and excluding or reducing carbohydrates has the merit originally of being less bulky, and secondarily it gives rise to less flatulence, and so for that reason takes up less room. The diaphragm has less to interfere with it. For much the same reasons I advise my patients to avoid drinking with meals. It adds to the bulk of the meal and increases flatulence. The questions of exercise and diet hang one upon the other. With asthmatics, as with everyone else, it should be largely a matter of demand and supply—exercise being demand and diet supply. Sometimes patients are better with no food after four o'clock in the afternoon. The habit of bringing food or

drink every few hours and insisting upon patients taking them against their natural inclination is especially, I think, to be deprecated. The best cure for no appetite is starvation.

The following two stories of cases will illustrate the benefits of open air and sunlight in asthma and certain chest diseases :—

J.Y.—Early last year I saw in a suburban road an old gentleman, an old friend of mine, waiting for a tram by the roadside. I offered him a lift into town, which he accepted. When I asked him how he was he told me he had had a cough for many months and could not get rid of it. He told me that he had left the old country 40 years before with a cough, had lost it either on the voyage to Australia or soon after arrival. He had been told that his lung was glued to his side as a result of the old trouble. Whatever was the cause of it the fact remained that he could not get rid of the cough. I asked him if he had heard of this new fad of sleeping out of doors, and he admitted that his wife had discussed it, but that he was sure it wouldn't agree with him, because he knew from experience that the least draught of wind set him coughing so that he had to come in at nightfall. I suggested that there were people who said that the real reason why people coughed at nightfall was rather because they came in out of the fresh air than from exposure to fresh air at nightfall; also I pointed out that excellent results were being obtained in Queensland, by Dr. Stewart of Dalby, especially, and in other countries by open air life, etc., etc. He seemed very doubtful, though somewhat impressed by the time we parted. Six weeks later I picked him up in my buggy from the same corner. He told me he had been taking my advice. He had slept out on the verandah ever since and was quite free from cough. I did not at any time examine this patient's chest, but he is still quite well, and I should take his trouble to be one of simple bronchial irritation akin to asthma.

R.N., a young man of splendid physique, a bushman, came to me last year with a bad attack of asthma. He had come to town for the show, had been quite well while in the bush, but had got asthma within a few days of arrival in town. It was a bit rough, he said, out west; he was droving, camping out wet often, sometimes for a week at a time, and never had asthma. He was not in town a couple of days before asthma returned. He had had to give up a billet in town on that

account some years ago owing to the same trouble. I told him that I did not think it was essential for him to do more than sleep on the verandah; that I found his turbinates swollen and might cauterise them later. First, however, he was to begin that night on the verandah and take no medicine. From that date there was no asthma, nor I believe since. He was under observation for a month.

G.M., a pearlsheller, came to be overhauled. While in Torres Straits on his cutter he is a martyr to asthma. Has been away in Sydney and Brisbane two months, and during that time free from asthma. This statement of his experiences appeared directly opposed to the supposed benefit of open-air life. Why did he suffer more on the cutter than when living in houses in Sydney and Brisbane? I suggested that his cabin was close, and perhaps not sunlit; but that idea was negated by his statement that his cabin was on the deck and had many glass windows, which were generally open. He was sure that the cabin was up to the mark as regards the admission of air and sunlight. At last, however, in explaining to me how bad he was, he said, "Why I am sometimes so bad that I have to come out on deck and sit in a chair to get air!" I asked him what then, and he said he would get so much better that after a while he could go back to the cabin and put in a few hours longer there. Plainly there was something wrong with the cabin, and there was some greater benefit in the open air even in his case. To make the story short I found that while in the cabin he perspired very freely, and that when he felt the breeze playing across his sweating chest his asthma was worse. I sent him away with instructions to try sleeping on deck, where he would probably not sweat so much, and he was to take a bottle of pot. iod. mixture with him in case his asthma did return.

Now, in this case I do not yet know the result of the outdoor sleeping, but it was this one that suggested to me that possibly the avoidance of sweating, which is secured by being outside, would sometimes explain the good effects. I have this summer found other cases sweating profusely indoors at night, with wheezing coughs for weeks, quite promptly relieved by sleeping on verandahs.

V.F., merchant tailor, and elderly, came to me six years ago. Got some benefit from cauterising turbinates and potass. iod., but not complete relief. Came to me again 18

months ago with great dyspnoea and cough, with wheezing, etc. He had been under various treatments, chiefly nose specialists, in this town and in the old country. He had a deflected septum, enlarged tonsils, and swollen turbinates. The last I was able to reduce a little with the cautery, but I set myself to overcome his evident prejudice to sleeping out of doors. When I succeeded he began to improve, and now I frequently see him walking briskly in and out of town, a mile and a-half. He still has his deflected septum, and if the asthma returns I should be inclined to straighten it. For the present he is much improved in spite of its presence.

Miss F. came to me in November last with cough and dyspnoea from asthma and bronchitis. She had suffered for two months, taken medicine, etc.; was sleeping in a particularly airy room, though rather deficient in sunlight. Was persuaded to sleep on the verandah, given pot. iod. gr. x, etc., at night, and sent home. Returned in a few days praising the verandah sleeping. This case is not conclusive as to the effects of sleeping out, because she had pot. iod. as well, but it shows at least that a pronounced asthmatic derived no harm from exposure to night air. The patient is persuaded of the efficacy of outdoor sleeping, and has continued it since.

R.A., æt. 28, presented himself for treatment in October last, with cough for five or six months, dyspnoea and wheezing every night. Six months ago weighed 12 stone 9 lb.; to-day his weight is 9 st. 12 lb. There is no expectoration, though there has been some streaked with blood; tongue coated with a thick white fur posteriorly, clean in front; his bowels constipated; appetite very poor, and his teeth deficient. His chest examination was negative, not even a rhonchus, though last night he was wheezing. He was ordered open air day and night. Diet—fluids and solids to be separated, quantity to be moderate. Deep breathing exercises, daily outdoor exercise; no medicine. A fortnight later he reports he has only had one night of wheezing and dyspnoea, and then only for three-quarters of an hour, whereas before that these symptoms "lasted all night." He had eaten two potatoes on the night in question, and was flatulent. Six weeks after he reported himself free from asthma, had ceased to lose weight (though he had only gained $\frac{1}{2}$ lb.). He was wearing thick black clothes and Jaeger drawers. He was ordered to reduce his clothing. He had the opportunity

of going to a farm on the Downs and giving up his work as telegraphist. He is busy on the farm, and reported quite well of asthma a few weeks ago.

(Read before the Queensland Branch of the British Medical Association.)

THE TREATMENT OF ASTHMA.

By A. Stewart, M.B., Ch.M., Dalby, Queensland.

THE principles which control advice given on the treatment of asthma are very simple, and consist in the avoidance of causes known to induce a paroxysm. In relation to this a change of climate is generally advised, and the maintenance of good health is regulated on general principles. A few instructions are also given as to the active treatment of an attack when the average medical attendant considers he has done his duty. Usually the general rules given by the physician are disregarded by the lay mind, and the treatment of the asthmatic speedily degenerates into the use of some sedative, powder, spray, or inhalation, while preventative measures are hardly ever tried, and the patient speedily becomes the most pessimistic of sufferers.

The impetus which has been given lately to the treatment of tuberculosis by means of fresh air has also been applied to asthma. Close, stuffy rooms have been found to be just as prejudicial to asthmatics as to phthisical patients, and in this respect it is quite probable that fresh air plays a much more prominent part in the treatment of this disease than the actual change of climate.

It has always been a difficult matter to explain the action of pure air in pulmonary disease. The bad qualities of the air in ill-ventilated apartments are not apparently caused by the increase in carbon dioxide and the diminution of oxygen; still even this slight disparity in the percentage of these gases may be conducive to catarrh. The presence also of organic products, which already breathed air contains, contributes considerably to its vitiating influence, so that probably a combination of these conditions diminishes the tissue resistance and renders the bronchial mucous membrane more liable to congestion. Whatever the cause may be, it is certain that life in the open air facilitates the respiration, eases the dyspnoea, stimulates the digestion, and soothes the patient. His condition is also greatly improved by the exhibition of iodide; in place of potass. iodid. I now always use calcium iodid. in 4 grains doses, combined with liq. arsenicalis

M.V. given thrice daily. When the wheezing has disappeared the iodide is discontinued, and is replaced by liq. arsenicalis hydrochloricus in m. x. doses thrice daily after meals, which is continued for three months. In many cases treated as above the wheezing returns if the calcium iodid. is discontinued. In such instances the nasal septum is cauterised on both sides, as advised by Dr. Francis, and this is repeated if necessary. If the wheezing still continues, a seton is inserted into the chest wall or nape of neck. This is the most effectual method of clearing up the lungs and breaking what may be called the "iodide habit." The seton I have always found superior to nasal cauterisation, which, I must confess, has never given me lasting results. Still, the cases recorded by Dr. Francis cannot be ignored. As an operation, nasal cauterisation is a simple and uncomplicated one, and only means the intelligent use of a good lamp and cautery. The vexed question as to whether the results are merely due to the removal of an obstruction, or are caused by some nasal reflex, will not be discussed.

During an attack of asthma there is usually a loathing of food, and as the attack subsides a diet in which proteids bulk largely is given. If the digestion is bad, as it very often is, in chronic cases, Salisbury diet is ordered. As this generally proves irksome after a few days, Hare's diet, which consists in the exclusion of sugar and all farinaceous stuffs, the patient partaking of food in which carbo-hydrates are reduced to a minimum, non-starchy vegetables being substituted. Referring once more to Dr. Francis' cases, one question I should like to ask him or his followers: What is really done besides cauterisation? In his book (p. 56) he refers to diet as if it were merely a paltry side issue. The importance of diet is one of the most prominent factors in the treatment of asthma. This is not the place to discuss Dr. Hare's theories, but their clinical application in the therapeutics of asthmatic and kindred conditions is to me one of the triumphs of modern medicine. Given a man of good average weight, who can afford to lose a little, with an attack of asthma—it does not matter how desperate and hopeless his condition may be—put him on the treatment above given, making sure that Salisbury's or Hare's diet takes the most prominent part in the treatment, and a cure can be positively assured. When all the active symptoms have dis-

appeared, and the patient begins to realise that life after all is worth living, respiratory exercises should be commenced. To quote Dr. Harry Campbell, the simplest means of exciting respiratory movements are by any exercise which produces breathlessness. The exercise which does this in the superlative degree, and is within the reach of all, is skipping. Such exercises as dumb-bells, Indian clubs, etc., are useless to an asthmatic, the increased chest measurements being produced by the development of the muscles covering the thoracic walls, whereas skipping develops the respiratory muscles, increases the pulmonary capacity, and flushes the lungs with blood. The only cases where skipping is inadvisable are those which are complicated with pronounced pulmonary emphysema.

My experience of treating asthma on the above lines comprises over 60 cases, 75 per cent. of whom have derived permanent benefit as far as known of their after history. When I say permanent benefit, I mean to infer that their lives have become useful and happy, instead of being either in an utter state of misery, or in a state of expectancy and fear of another attack. The "reminders" when they do occur are so mild in character as not to prevent them following their occupation. As examples of different cases and the mode of treatment employed I will give the following:—First: Examples of cases treated by fresh air, diet, and three months' course of arsenic.

W.F., resident on Darling Downs, suffered for ten years. Latterly has been subject to very severe attacks every fortnight on an average; has never been able to work continuously for over a month for the last two or three years. In July, 1899, was put on treatment and has been able to work ever since; only one very slight "reminder."

Mrs. M., housewife, resident Darling Downs, a hopeless invalid for many years, stated that latterly on an average spent about five months yearly on a chair, so great was the dyspnoea. In August, 1899, was put on treatment and has never had even a "reminder" since; is able to do a hard day's work and enjoys life.

G.A.W., Treasury Buildings, dates asthma as commencing 11 years ago; then for two years was almost free. For a year previous to treatment was very ill with frequent attacks. In September, 1904, treated; well ever since.

Second.—Examples of cases treated by fresh air, diet, arsenic, and skipping.

Mrs. F., housekeeper, Charters Towers Hospital, had been a victim to severe asthmatic attacks for many years. Went to England for a change and further advice. On her return journey her life was despaired of. About a month before coming here for treatment her nasal septum was cauterised in Brisbane without result. In November, 1904, treatment commenced; lost several pounds, which she could well afford; has been in excellent health ever since; never had even a mild attack.

W.A.I., Brisbane: Asthma for four years; for last six months suffered almost continuously. Treated August, 1906. Did well and remained so when last heard of about end of same year.

C.E.W., traveller, Brisbane: Suffered five years. Dyspnoea and cough almost nightly. Treated November, 1906; well ever since.

Third.—Examples of cases treated by fresh air, diet, arsenic, skipping, cautery, and seton.

F.S., Brisbane: Suffered for four years; had for two years attacks very severe and frequent. Nasal septum cauterised in Brisbane without result. Commenced treatment January, 1906. Was heard of about a year ago working in New England doing well; has had one or two "reminders."

C.S., Rosewood: Suffered 15 years; for last two years attacks very severe. Treated March, 1906. Has had several "reminders," but not nearly so severe as formerly.

W. McD., local preacher: Suffered over nine years. Latterly suffered from very violent attacks. Treated July, 1906. Heard of about six months later, doing well.

Fourth.—Cases illustrative of asthma complicated with nasal obstruction.

M.M., Brisbane: Had asthma for over two years. Nasal septum cauterised by specialist in Brisbane. Great relief to symptoms. Put on weight and became practically well. Had return of symptoms; polypus removed in Brisbane with no relief to symptoms; gradually became worse. May, 1905, found him in a miserable condition. Prescribed fresh air, dieting, and arsenic combined with strychnine. No result whatever.

T.B., Darling Downs: Suffered 13 years. Attacks very frequent and severe. Found both nostrils almost completely obstructed with polypi. March, 1900: Complete removal of polypi. Asthma disappeared and patient breathed perfectly. Took to droving

and outdoor life; continued well for over two years. Difficulty in breathing gradually returned, also asthma. Polyp again removed with complete relief to breathing and asthma. At time of writing patient is suffering once more from return of both complaints.

(Read before the Queensland Branch of the British Medical Association.)

ON THE VALUE OF THE OPHTHALMO-REACTION IN THE DIAGNOSIS OF TUBERCULOSIS.

By Sinclair Gillies, M.D. (Lond.), Hon. Physician Lewisham Hospital, Hon. Assistant Physician Royal Prince Alfred Hospital, Sydney.

THE announcement by Calmette of the value of the ophthalmic-reaction in the diagnosis of tuberculosis has roused world-wide interest, and already many papers have appeared praising its reliability or pointing its limitations. The object of this communication is to record the results of a series of observations made with the view of testing the trustworthiness or otherwise of the reaction.

Calmette recommended the use of his serum prepared by growing tubercle bacilli for six weeks in a 1 per cent. peptone glycerine broth, concentrating to one-tenth its bulk after filtration, precipitating with 97 per cent. alcohol, redissolving and precipitating twice, drying the residue, and from this preparing a 1 per cent. solution as required. The dried precipitate is sold in small tubes to which are added 10 drops of water, and one drop is instilled into the inner canthus of the eye to be tested. If the patient suffers from tuberculosis in any form a characteristic reaction appears generally from three to twelve hours later, lasts a varying period, depending on its severity, but has usually disappeared in from three to six days time. The reaction varies in intensity from slight redness and swelling of the caruncle and plica semilunaris, with generally some redness of the lower lid to a marked redness and swelling of the palpebral and bulbar conjunctiva, with a stringy muco-purulent discharge and sometimes redness and swelling of both eyelids.

Many observers, notably Fritz Levy, in a paper read before the Society for Internal Medicine at Berlin, in December last, hold that it is unnecessary to use Calmette's serum, as a 2 to 4 per cent. dilution of old tuberculin answers equally well. It is unfortunate that these two methods are being used side by side, as the dilution recommended by Levy gives a much weaker solution than that recommended

by Calmette. His 2 per cent. solution corresponds to a 0.2 per cent. dilution of Calmette's serum, and possibly accounts for his larger percentage of negative results.

In the observations recorded below either Calmette's serum was used (cases 13-59) or a serum made by precipitating old tuberculin with absolute alcohol, washing carefully, drying and then making a 1 per cent. solution from the precipitate. As the earlier steps in the preparation of Calmette's serum are those of preparing old tuberculin, the above serum is practically identical with Calmette's.

In all 129 tests were made in 103 individuals. Where any doubt could arise as to the correctness of the result, the test was controlled by the injection of old tuberculin. Forty such injections were given.

Method.—Dilution was effected by a medicine dropper, care being taken to hold the dropper in the same position in making the dilution and instilling the drop into the eye. The solution was always used within 24 hours of preparation. The two eyes were carefully compared before the test, and where one conjunctiva appeared redder than the other the paler eye was the one tested. In comparing the eyes the patient was directed to look upwards and from side to side, and the lower lid was drawn down. The eye was again examined at the end of eight and twenty-four hours.

The reaction appeared in times varying from 2½ to 18 hours, and was always present, though often much less marked at the end of 24 hours. As far as could be judged the severity of the reaction bore no relation to the extent or situation of the disease, and in no case were any ill effects produced by one instillation. Except where the reaction was very severe there was little complaint of discomfort. The number of severe reactions was small, and occurred mostly in children.

Of the primary instillations 53 cases gave a positive, 50 a negative result.

The 53 positive results were distributed as follows:—

17 occurred in cases of obvious pulmonary tuberculosis, two being early, the others moderately advanced or advanced cases. No case of definite pulmonary tuberculosis failed to react. No moribund cases were tested.

1 case of slight pleurisy, confirmed by tuberculin injection; 1 case of recurring pleurisy and suspected spinal caries confirmed by tuberculin injection; 1 case of pleurisy, operated on as duodenal ulcer, confirmed by

tuberculin injection; 1 case of pneumonia, which took two months to resolve, is now without physical signs, but has temperature 99.6, confirmed by tuberculin injection; 1 cough and loss of weight, no physical signs, evening temperature 99.5, confirmed by tuberculin injection; 1 debility, no cough or physical signs, temperature 99, is nursing two tubercular relations, confirmed by tuberculin injection; 1 pulmonary tuberculosis and tubercular knee; 2 cases of sacro-iliac disease; 2 tubercular sinuses of hip, confirmed by tuberculin injection; 2 tubercular hips; 1 psoas abscess; 2 tubercular knees; 1 tubercular ankle, apparently quiescent, confirmed by tuberculin injection; 2 doubtful knees, proved tuberculous by tuberculin injection; 2 tubercular glands in neck; 1 syphilis and tubercular gland in neck, confirmed by tuberculin injection; 1 gonorrhœa and tubercular gland in neck, confirmed by tuberculin injection; 1 control hæmatemesis, confirmed by tuberculin injection; 1 case cerebral embolism and valvular disease of heart, with no physical signs of tuberculosis, confirmed by tuberculin injection.

In the above 42 cases there can be no doubt of the correctness of the diagnosis.

Of the remaining 11—

1 was a case who a year before had hydro-pneumo-thorax, had had open air treatment for three months, had gained weight and lost physical signs, but at time of testing had temperature 98.8°.

1 case of cough and loss of weight for a month, with evening temperature, a few post-tussic crepitations at the right apex which moved slightly less than the left, and, later, slight hæmoptysis.

1 case cough and debility following "influenza" a fortnight before. Right side of chest moves less than left and note is slightly impaired, though no tubercle bacilli were found.

1 case of chronic fetid bronchorrhœa, with hæmoptysis, pleurisy and fever.

1 case of diarrhœa, with persistent crepitations at right base as high as angle of scapula.

1 pneumonia, unresolved for three weeks, who left hospital before a tuberculin reaction could be done.

These cases, though not proved, are clinically tubercular.

Of the five remaining cases—

2 were convalescent enterics. One reacted vigorously to ⅓ m.g. tuberculin after failing with m.g. ⅙. The other, whose original

eye reaction was slight, in 36 hours reacted to 99° with $\frac{1}{4}$ m.g., when through some mistake no further observation was made.

2 were cases of secondary syphilis. One reacted to a subsequent injection of $\frac{1}{4}$ m.g. tuberculin. In the other, 36 hours after $\frac{1}{4}$ m.g., the temperature rose to 99·6.

1, a case of gonorrhœa and syphilis, went out before being injected.

Thus we get of 53 positive reactions, 42 certainly tubercular, 6 clinically tubercular though not proved, 2 (enteric and syphilis) in which tuberculin confirmed the eye reaction though not necessarily proving them tubercular, 2 (enteric and syphilis) in which the tuberculin reaction was partial, and 1 unconfirmed.

Of the 50 cases in which the ophthalmoreaction was negative there were—

1 dyspepsia, no suggestion of tuberculosis; 1 convalescent from operation for fistula, no signs of tuberculosis; 1 neuritis left leg; 1 malignant disease of bladder; 1 contracture from burns; 1 early locomotor ataxia; 1 lymphatic obstruction of leg; 1 chronic valvular disease of heart; 4 chronic nephritis; 1 subacute nephritis; 1 ascites and right pleural effusion, negative to $\frac{1}{4}$ m.g. tuberculin, proving on operation ruptured hydatid.

1 harsh breathing at apices, negative to $\frac{1}{4}$ m.g. tuberculin.

1 cough and temperature for few days, apparently influenza, now well and no suspicious signs.

1 subacute rheumatoid arthritis in adult.

1 subacute rheumatoid arthritis in child, negative to tuberculin.

9 convalescent enterics, temperature down 5-17 days.

7 syphilitics in secondary stage, under treatment less than three months, without rash; 3 cases of gonorrhœa; 1 case of gonorrhœa and syphilis.

1 ankylosed hip, probably tubercular, up and about for five months after seven months' rest.

1 caries of spine detected in early stage one year before, on back nine months, about and well three months.

1 case of very early pulmonary tuberculosis arrested two years ago; at onset tubercle bacilli found in sputum.

1 case occasional summer diarrhœa, signs of old consolidation at right apex; no symptoms known to patient.

1 case swelling side of knee for five months.

This case reached to 99·8° with $\frac{1}{4}$ m.g. tuberculin given 14 days later, with local skin reaction but no recurrence of eye reaction. Proved at operation to be myeloid sarcoma.

1 doubtful ankle, with sinuses, reacted 14 days later to 100° with $\frac{1}{4}$ m.g. tuberculin, and temperature remained irregularly raised for a week. Unfortunately a four-hourly chart had not been kept prior to the injection of tuberculin, and there had been irregular fever a week or two before, so the reaction cannot be relied on.

1 swelling of both testicles, without involvement of vas, vesiculæ, or bladder, which cleared up considerably under rest and large doses of potassium iodide, in a man of 21. There was no syphilitic history, except that hair fell out in patches. In this case the first test was negative; a second, 33 days later into the same eye, was positive, as was expected. Fourteen days later he reacted to 100° in 32 hours, and later to 101° with $\frac{1}{4}$ m.g. tuberculin without signs of focal reaction, but with local skin reaction and recurrence of eye symptoms. This case was quite possibly tubercular, though one would have expected some tenderness of testicles on injecting tuberculin.

1 case of acute enteric, with pneumonia and positive Widal, gave in acute stage negative reaction; 22 days later a second test in the same eye gave, as expected, a positive reaction. Fourteen days later $\frac{1}{4}$ m.g. injection of tuberculin gave a reaction to 103·6°, with severe recurrence of eye symptoms.

1 case of meningitis, clinically tubercular, in which the test was made three days before death.

1 case of rapid pulse, persistent crepitations at both bases, slight fever, sputum repeatedly negative for tubercle bacilli, gave negative ophthalmoreaction, but six days later reacted to 102° with $\frac{1}{4}$ m.g. tuberculin.

1 case cough and run down three weeks. No temperature or chest signs. Some lachrymation at time of instillation. Reacted 14 days later to 99·4° with $\frac{1}{4}$ m.g. tuberculin with considerable constitutional disturbance and local skin reaction. The eye now reacted.

1 case of secondary syphilis 28 days after two negative instillations into the one eye reacted to $\frac{1}{4}$ m.g. tuberculin.

We find then that out of 50 negative cases, 39 definitely non-tubercular gave no reaction; four cases of clinically healed tuberculosis gave no reaction; one case of enteric, one of

syphilis and one of swelled testicles gave a negative eye reaction, but after a second instillation reacted subsequently to tuberculin injection; one case of probable tubercular meningitis failed to react, as did one with basal lung signs, which subsequently reacted to tuberculin; one negative case reacted feebly to $\frac{1}{2}$ m.g. tuberculin, having failed to react to the eye test; and in one case the result of the tuberculin reaction was doubtful.

Excluding for the moment cases of secondary syphilis and convalescent enterics, which will be dealt with later, we have 48 positive results, in all of which, either from physical signs or confirmation by tuberculin injection, there was no doubt of the presence of tuberculosis.

Still excluding syphilis and enteric we have 31 negative cases, in two of which tuberculosis was probably (cases 50 and 87), in two (cases 37 and 42) doubtfully present, giving a maximum error of 13 per cent.

Convalescent Enterics.—Levy, as the result of one positive case, and the observations of Cohn and others, that typhoids exhibit an anaphylaxis for bacterial albuminoids, states that convalescent enterics give the ophthalmoreaction.

In the above series of 12 tested, only 2 gave a positive reaction. Of the positive cases one reacted definitely, the other doubtfully to tuberculin, the dose in the second case being small. Of the negative cases, one after a second instillation reacted later to tuberculin, though showing no signs of tuberculosis. From these figures, as far as they go, it would appear that a small percentage of convalescent enterics apparently free from tuberculosis, react to the eye test, and with equally frequency to subcutaneous inoculation.

Secondary Syphilis.—Arloing states that in secondary syphilis in full activity a positive reaction occurs, which, however, always appears later.

In the above series 12 cases were tested. Three gave positive ophthalmoreactions. Of these one reacted well to tuberculin, one feebly, one was not tested. One case negative to two instillations, reacted to tuberculin.

It thus appears probable that the reaction may occur in cases of secondary syphilis, as has long been known to be the case with tuberculin injection, and as far as the above figures go, to the same extent.

Result of second instillation of tuberculin into the same eye.—Levy warns against a second instillation into the same eye, as he

got positive results in three-fourths of his cases. He also states that a third instillation may give a very serious reaction.

The subjoined table gives the result of second instillations:—

No. of Cases.	Interval between Instillations.	Result.
1	1 day	—
2	5 days	—
5	7 "	—
1	9 "	—
3	9 "	+
1	21 "	+
1	22 "	+
2	33 "	+

It will be seen that in eight cases where the second instillation was made before the eighth day no reaction occurred, while of four made on the ninth day three gave positive results, as did also cases where the instillation was repeated as late as the 33rd day.

From these cases it appears that it is perfectly safe to repeat the test where any doubt exists, provided it be done within seven days of the first test. A positive result on repeating the instillation after nine days invariably occurs, whether the patient be tuberculous or not.

These results are explained on the assumption that a condition of anaphylaxis, that is an increased sensitiveness of the tissues to tuberculin, is produced by the first instillation. The latent period, nine days, agrees with the latent period found in experimental production of anaphylaxis in animals. How long this condition of anaphylaxis lasts cannot at present be stated. At first it is marked, and accounts for the fact that a second instillation into an eye that has already reacted, generally produces a much more marked reaction than the first, and for the fact noted later that when a confirmatory dose of tuberculin is given in a case that has reacted to the eye test, a fresh eye reaction occurs which is much more severe than the primary reaction.

As time goes on the anaphylactic reaction becomes less marked, but was well marked 33 days later, and was also noted in a tuberculous case where a tuberculin injection was given 51 days after the ophthalmoreaction had been obtained.

From a practical point of view this fact is of greatest importance. It is absolutely necessary when this test is applied that the patient be clearly informed as to what has been done, otherwise repetition of the test in ignorance of the previous instillation must lead to serious mistakes in diagnosis.

Another point of practical importance is that disappearance of the reaction in a case of

arrested tuberculosis means that not only has the tuberculous process ceased, but that sufficient time has elapsed for the tissues to lose the anaphylactic condition conferred by the disease when active. The length of this period between the cessation of active disease and the loss of anaphylactic reaction is as yet undetermined, but from the above observations is more than 33 days.

Effect of second instillation into opposite eye.—The observations made under this heading are too few to be of much value, but as far as they go tend to suggest that the result of a second instillation into the opposite eye is not affected by the primary instillation.

Recrudescence of eye reaction on injecting tuberculin.—We were surprised to find that in most of our early cases subcutaneous injection of tuberculin as a confirmatory test caused a recrudescence of the ophthalmo-reaction, while in a few it did not. Some of these secondary reactions were of great severity, much in excess of the primary reaction, going on in some cases to the production of conjunctival hæmorrhages, and in one case, a child of 13, with tubercular hip, whose original reaction had been moderately severe, to phlyctenular ulceration of the cornea.

In four cases in which one eye only was tested, both eyes reacted on injecting tuberculin, the reaction in the untreated eye being, however, very mild.

Of five cases which gave originally no ophthalmo-reaction and subsequently reacted to tuberculin, one injected on the fifth day gave no reaction, one on the sixth day gave slight redness of both eyes without lachrymation, one on the fourteenth gave a severe reaction in the treated eye, two done on the twenty-eighth day gave a mild reactions.

In the cases where the eye had originally reacted, and tuberculin was given subsequently, one injected on the second and two on the third day had no recrudescence, one on the fifth and one on the sixth had slight reactions, one on the sixth very marked, as had all cases (19 in number) injected subsequently, excepting two done on the thirty-seventh and fifty-first days, in which the reaction was slight.

Further data are wanted on this point, but it seems probable that where the eye has not reacted to the instillation, injection should be performed within eight days to avoid an anaphylactic reaction. Where the eye has already reacted, confirmatory injection should be undertaken within five days or at a long

period after, and should be of sufficient strength to ensure reaction and so obviate repeated injection and repeated recurrence of the eye reaction.

Many interesting questions suggested by the above experiments await answer. Among them, is it possible by repeated instillation in a normal individual to sufficiently sensitise the body tissues generally to cause a positive reaction to a moderately larger injection of tuberculin? Is it possible by previous subcutaneous injection of tuberculin to sufficiently sensitise the eyes so that they will react to the eye test? Is it possible by injecting tuberculin to so sensitise the tissues of a healthy individual that an injection given after the anaphylactic latent period may give a positive reaction?

With the reserve that must always attach to a small series of cases we draw the following conclusions:—

1. A positive ophthalmo-reaction where a 1 per cent. dilution of Calmette's tuberculin is used, in the absence of secondary syphilis and possibly convalescent enteric fever, is diagnostic of the presence of an active or recently quiescent tubercular focus somewhere in the body.

2. A negative reaction does not definitely exclude tuberculosis, but is strongly against its presence, the margin of error being about 13 per cent.

3. The ophthalmo-reaction is as reliable as the ordinary tuberculin reaction, is readily carried out, involves little discomfort and no loss of working time to the patient.

4. The reaction is of no value unless it is certain that the eye has not been previously tested.

5. Where the original reaction has been negative it may be repeated within eight days and a positive result accepted.

6. Where doubt exists as to the correctness of the reaction confirmatory injection, if done, should be performed within eight days where the reaction has been negative, and five where positive.

In conclusion I wish to express my indebtedness to the honorary staff of Prince Alfred Hospital for permission to use these cases, to the resident staff for much valuable assistance, and more especially to Drs. Welch, Wallace, Stephens and Mathews, who gave up much time to aiding in this research.

(Read before the New South Wales Branch of the British Medical Association.)

THE TREATMENT OF TUBERCULAR JOINT DISEASE BY OPEN CUT AND EXPOSURE TO SUNLIGHT.

By H. Swift, M.D. (Cantab.), Adelaide.

HAVING been requested by our Council to open a discussion upon the treatment of tubercular joint disease, I have looked up the records of such cases which have been under my care during the past 10 years, and have selected the notes of three of these in order to illustrate the line of treatment I generally adopt.

No. 1 is the case of H.C., who was admitted into the Children's Hospital in March, 1899, with the history of having had a fall about a month before admission, and complaining of pain in right hip. He had all the symptoms of acute hip-joint disease, and was treated accordingly, the movements of joint being abolished by means of a Thomas' splint, and the pain eased by application of extension. A month after admission, as there was now distinct fluctuation in front of the joint, under ether an incision was made between the sartorius, and the tensor vaginæ femoris, and a considerable quantity of thin, watery serous fluid, with flakes of lymph, was let out; after scraping and flushing with a large quantity of weak boracic acid lotion the wound was stitched up. The wound remained healed for three weeks, and then broke down and continued to discharge for five weeks, when he was again put under ether, the wound enlarged, and a considerable quantity of softened bone was gouged away from the neck and head of the femur; a large quantity of granulation tissue was flushed away, and the wound was packed to the bottom with iodoform gauze. The gauze was changed daily, care being taken to get it to the extreme limit of the wound. Considerable trouble was experienced in keeping the skin wound open. He was discharged on October 6th, 1899, being entered up cured. When last seen, about two years after, he was perfectly well and had a freely movable joint.

Case No. II. is that of R.V., æt. 9½ years, who was admitted in the Children's Hospital in July, 1899, with tubercular disease of her knee-joint. Several abscesses were opened during her stay, and the joint was freely opened, scraped and flushed, but with no improvement; so in October I opened the joint with a horseshoe flap, with a view to erosion or excision, but the mischief in both the femur and the tibia was so extensive that it was

considered unwise to attempt any conservative treatment, and that the only thing to do was to amputate. As the consent of the parents had not been obtained, the flap was stitched down, and the patient removed to bed. The parents would not consent to the major operation. The girl was very ill for several weeks; numerous abscesses formed, were opened and drained, leaving sinuses. However, she gradually gained a little strength, and was sent up to the Convalescent Home on a Thomas' knee-splint. She was discharged in March, 1900. She was re-admitted in October, 1902, with a large gland abscess in groin. This was opened and scraped, and she left the hospital after a fortnight's stay. The knee was stiff, greatly thickened, with six discharging sinuses. She was admitted again in November, 1903, as there had been more pain in the knee and much discharge. Under ether the flap was turned up again and the joint exposed. The patella, which was much diseased, was removed, and large masses of bone were scraped out of the condyles of the femur. She was put out in the open air with knee-joint exposed to air and sunlight, with a single layer of gauze intervening. The wound, after three weeks of this treatment, looked much better, but as there were several sinuses still, ether was again administered on February 9th, 1902, and large incisions were made, laying all the sinuses open. A considerable quantity of skin was removed so as to prevent too rapid cicatrization, gauze was packed into the bottom of the wound, and the joint, after the first 24 hours, was left exposed to direct sunlight. On March 18th the note is, nearly all sinuses closed. On the 26th, wound almost healed. On April 8th she left for Mount Lofty with all wounds closed. I often see her walking about, quite well, but with a stiff joint.

Case No. III.—Annie B., æt. 3, was admitted into the Children's Hospital with early hip-joint disease in 1898. She wore a Thomas' hip-splint for 18 months, and was able to attend as out-patient. She was apparently quite well for four years, running about, with no pain, tenderness, nor lameness. In August, 1904, she began to limp again, and a swelling was noticed on outer aspect of thigh. She was readmitted, and under ether a large abscess was opened, and the whole joint curetted with flushing curette. The head of the femur was bare, and necrosing bone could also be detected in the acetabulum. The

wound was closed. A fortnight after, note was made that the wound had healed; all the sutures removed. On September 17th there was a little swelling and fluctuation under cicatrix. This was opened and small cavity curetted; wound again closed. This occurred again on several occasions until the end of October, when the wound finally healed. She was admitted again in August, 1905, as the old trouble had just started again. An abscess was opened, sinus scraped, flushed, and skin wound sewn up. It healed by first intention, and she was discharged on October 29th. Two months after she was readmitted, as the cicatrix had broken down, and was discharging, and the child had developed a cough, and was looking pale and thin. There were scattered râles all over both lungs, with consolidation at both posterior bases. The wound was looking very red and unhealthy, with sprouting applejelly-like granulations. She had a distressing cough and night sweats and hectic temperature. On January 30th the notes are: "Patient has been living out of doors, day and night; cough is better; no sputum or night sweats; weight keeping up; not much improvement in hip." February 28th, 1906: "Child looks much better, but there is a great deal of discharge from wound. On March 8th another collection of pus was noticed and evacuated; chest signs much improved." March 16th: "Ether was administered and taken well, with a view to curetting and flushing, but upon inserting finger into wound alongside Poupert's ligament, profuse venous hæmorrhage started. Wound was enlarged, but exact sight of bleeding could not be located. Pressure was applied over iliac vessels, and wound plugged; bleeding ceased. Other sinuses scraped, flushed and packed."

In May, the note says, wounds have been gradually healing, but there is still a great deal of discharge; lung sounds less, no crepitations except at left apex. In September the sinuses were again enlarged as much as possible, scraped, flushed and packed, and the wounds left exposed to sunlight. On 17th the report is, discharge much less; child comfortable. On the 20th she was so much improved and the wounds were looking so healthy she was sent up to Mount Lofty. The wounds rapidly healed during her stay there, and she gained tremendously in weight, and was generally pretty well until the following September, when she caught a cold, and the old trouble at her left apex started

afresh, and she was sent down to town. On October 14th, 1907, there was consolidation and some active trouble going on in left apex. Hip soundly healed. As her mother wished her to be at home, she has been living out of doors and having lots of milk and taking guaiacol and ol. morrhue. On February 10th the consolidation has almost cleared up; child very well.

In case No. 1, I first of all adopted Barker's method, as I considered there was a good possibility of success, but upon the wound breaking down and upon finding such a large cavity in the bone I decided to make as large a skin wound as possible and try to keep the wound packed from the bottom.

Case No. 2 is one of the best examples I have seen of the effects of the treatment I am advocating. When at Great Ormond Street last August I was shown a case of tubercular disease of knee-joint that had been treated by laying the joint freely open and exposing it to the air. It had done very well indeed. They were somewhat surprised to hear we had been treating similar cases on these lines for some years.

In case No. 3, in the earlier stages of the disease I followed out my usual custom on the lines laid down by Barke- for opening, curetting and flushing the joint, and then suturing the wound without drainage. In those cases in which the disease is not of long standing and where there is not much destruction of bone, the disease being limited to the superficial covering of the head or the acetabulum, and where there is not likely to be any cavity to permit of the pocketing of blood, I treat as above, and frequently with healing by first intention. But where the trouble is more extensive, where the disease is deeper in the head of the bone, and where the greater part of or all the head has to be removed, or where there is much destruction of the acetabulum, and where there is certain to be room for the accumulation and probable infection of blood, these should be treated by extensive skin wounds, curetting, flushing, and packing with gauze to the bottom, as in case No. 1. The great trouble one has to overcome is the tendency for the skin wound to contract and cicatrise before the sinus is healed from the bottom, and there is a need for some efficient spring instrument for this purpose.

These three cases—three out of several treated during the last ten years—are examples of a line of treatment which I feel con-

fidest is in the right direction. I lay no claim to originality, but simply wish to direct more attention to the need for more efficient drainage so as to prevent accumulation of "products," and by so doing allowing free communication with air and, further, the benefit to be derived from exposing the wound to sunlight. When I was a student at Cambridge I saw Professor Humphry treat his amputations by exposing them to the air, free of all dressings; they did well. I have never forgotten the sight of those stumps protruding from under the bed clothes. When I joined at St. George's Hospital supuration of wounds was of common occurrence with cellulitis, erysipelas, etc. The cases that did the best were those which were under Mr. Timothy Holmes, the reason being that his incisions were the longest; there was more efficient drainage and more unhealthy surface exposed to the air. I have never forgotten Holmes' finger marks. In Holmes' System of Surgery great emphasis is laid upon the necessity for efficient drainage in strumous disease of joints. Barker's paper on the advisability of thoroughly curetting, complete flushing away of all pathological material and the closure of the wound, accompanied with the endeavour to obliterate all pockets, was the beginning of a brighter era for these cases.

Unfortunately there is a certain proportion of cases that we see, that either from the extreme acuteness of the disease or from neglect to call in medical aid at an earlier date, it is impossible to treat in this way, owing to the extensive amount of disease. These are the cases for which I advocate the open cut and exposure to sunlight. We have all observed the beneficial effects of laparotomy for tubercular peritonitis, the draining of pleural cavities for effusion, and the exposure of patients with pulmonary tuberculosis to open air and sunlight.

During my visit to England I was much interested in observing that a vast amount of attention was being directed to the treatment of tubercular bone disease by, in some cases, the injection of tuberculin R., or in others, by vaccinating them with the cultures of their own particular organism. If a case, after operation, was not progressing satisfactorily, skiagraphs were taken, and if active mischief was observed, resort was had to one of these methods, and as far as could be judged from the limited number of cases, with a fair measure of success. The opsonic index was taken prior to and after the vaccination. If this line of treatment is proved to be success-

ful it could be applied to a goodly number of cases in which the active disease is so placed that it cannot be reached without extreme risk to neighbouring parts, as in spinal caries.

Before sitting down I think that some apology is due for occupying your time with a subject which to many of you is of little scientific interest; but in appealing for leniency for my presumption I would plead an earnest desire to emphasise a method of treatment in these long standing and heart-breaking cases which will shorten the course of the disease, will mitigate the distress and discomfort of the patient, and will alleviate the anxiety of the parents, the nurses, and the medical attendant.

(Read before the South Australian Branch of the British Medical Association.)

THE MANAGEMENT OF BURNS AND SCALDS.

By A. C. F. Halford, M.D., Brisbane, Q.

It is only fair to myself to explain how I occupy the position of opener to this discussion. Recently I expressed a wish in the hearing of our esteemed honorary secretary that during the present year some member would read a paper on the management of burns and scalds. My object was to gain some information on a subject in which I fear present-day surgery has not helped us to the extent one would have hoped. He promptly decreed that I should seek it in this manner. Not having the moral courage to refuse at the time, I am now about to ask you, to enlighten me on the validity or otherwise of the opinions I express. Dissatisfied with present methods, I have decided to follow what I think is a new departure, and it remains for you to say whether I should be justified in so doing. I do not intend to deal systematically with the subject, but will ask you to come at once in response to an urgent summons to the bedside of a victim to extensive burns of the third or fourth degree. As we proceed to cut away the clothing from the injured part we reveal the effects of a severe burn or scald. Perhaps we have been anticipated, and we find the site of the lesion obscured by the misguided application of flour of doubtful ancestry, or some other substance equally difficult to remove. Such applications baffle our attempts to render the parts aseptic; they also impede drainage and promote septic absorption. No doubt they relieve pain, but this can be accomplished by means less harmful and quite as simple.

Passing over for the moment the management of the general condition of the patient, we discuss the best means of disinfecting the part and the kind of dressing we will apply. As the patient is mine I claim the privilege of giving my ideas first. I have always been in the habit of removing any detached or semi-detached pieces of skin or other tissue, of puncturing blisters and cutting away the epidermis as completely as possible. The reason for so doing is that such tissue is devitalised and will rapidly become offensive in the warm, incubating atmosphere of the dressed wound. I read, however, that blisters should not be so treated, as more pain is suffered and healing is retarded. I am not certain that the latter disadvantages outweigh the advantages, as everyone agrees that sepsis is the paramount danger in cases of this kind. C. B. Lockwood, in "Treves' System of Surgery," says that the juices of burnt tissues are highly toxic. I am certainly of opinion that dressings entailing such searching disinfection and a good deal of handling call for the use of a general anæsthetic. I have mostly used chloroform, as so little is required to remove sensibility to pain, whereas, if single-handed, ether is not so easy to manage. One must push it beyond the stage of excitement and keep it there, which, under such circumstances, is not always easy. Under the anæsthetic we can fearlessly apply antiseptics of kind, and in such manner as are generally approved. Personally, I prefer the method I adopt in disinfecting the hands and skin under ordinary circumstances. This involves the successive application of ethereal soap, warm lysol, and alternate douching with spirituous and aqueous solutions of biniodide of mercury, commencing with a strength of 1 in 500 and gradually reducing this to 1 in 2000. This preliminary disinfection is highly important, no doubt; but the most difficult and most essential task is the maintenance of aseptic conditions in the wound subsequently.

It is here, in my opinion, that antiseptic substances so signally fail. In looking for guidance I find that C. B. Lockwood (*loc. cit.*) is the only writer who has the courage to admit that "the prevention of suppuration after burns is in a very backward state." Again he says: "The number of deaths from sepsis after burns and scalds is a reproach to surgery." I feel in good company when I cordially agree with this plain admission of the inadequacy of antiseptics in these con-

ditions. It is now 13 years since these words were written, and I should like to meet the man who can to-day refute them.

With all due deference to modern surgical teaching, I am prepared to say that there are occasions in surgical practice when antiseptics are not only useless but hindrances; and this is so to a large extent in the present case. I therefore propose after the preliminary antiseptic washing to dress this case without antiseptic applications of any kind whatever, except the occasions seem to demand it when the dressings are changed.

In justification of this decision I must make a digression. For a long time now I have been turning over in my mind the possible limitations of antiseptic applications. When introduced, it was natural that antiseptic methods should be invariably practised. We are always apt to run a good thing to death when we first get hold of it. Sooner or later surgeons evolved aseptic methods, and with great advantage, as we all know. Nevertheless it still behoves us to inquire into further possible limitations of these reagents. It seems quite reasonable to me that we may still be using antiseptics in a way that may retard rather than hasten the process of cure. I must admit that a fine discrimination is required in determining this point; but I am convinced, in one direction at least, antiseptic reagents are applied with detrimental results easily proved. I refer to the use of antiseptic dressings for the umbilical cord. In that direction I hope we will learn a useful lesson, and I will try and justify myself in restraining the use of antiseptics in somewhat analogous and similar conditions.

The nearest approach to a general statement which I can attempt is to say that where death of tissue results from necrotic action, antiseptics are essential and indispensable. On the other hand, sloughing following injury by physical agencies or any cause independent of micro-organisms should be treated with great discrimination with regard to antiseptic measures. They are absolutely necessary at some stages, no doubt, but their routine use is possibly injudicious, to say the least. Or, to put it another way, localised sloughing or gangrene without constitutional disturbance indicating secondary infection, is better treated without antiseptics.

I would ask you to consider for a moment what happens when the remains of the umbilical cord are in process of separation from the young infant. Complete separation should eventuate by the end of the fourth

or fifth day at latest by a process resembling dry gangrene. Now, dry gangrene is a process practically independent of pathogenic or even saprophytic organisms, so it is said. Hektoen and Riesman, in their text-book of pathology, say: "Dry gangrene occurs on superficial parts of the body which are freely exposed to the air, so that fluids in the dead tissues evaporate rapidly, *the dryness rendering infection with saprophytic bacteria difficult or impossible.*" (italics mine.)

I think I am justified in drawing an analogy between the separation of sloughs forming as the results of burns or scalds, and the separation of the naval string of infants.

Unfortunately it is not easy to procure desiccation and mummification of sloughs as it is in the case of the cord. The first essential is dryness of the parts and promotion of evaporation of moisture. In addition to this we must observe the influence of antiseptic substances in both processes. We must admit of the disappointing results of antiseptic methods in burns and scalds. What is the explanation of it? I believe it fails because it retards separation of slough, and is also unable to influence the moist gangrenous putrefaction going on in the dense sloughing tissue.

I would like to hear to-night what is the experience of those who use antiseptic dressings on naval cords. I conclude there must be some who do so, as there are so many nurses in Brisbane, many of whom are trained here, who use a dusting powder with boric acid in it almost invariably.

Some years ago I was so impressed by the action of even such a mild antiseptic as boric acid in delaying the separation of the cord that I came to regard it as a practical means of testing certain proprietary antiseptic powders, so frequently brought under the notice of medical men. In one instance I was easily able to prevent the separation of the cord as long as the fourteenth day. I was so satisfied with the antiseptic properties of this powder that I cut off the cord close to the unavailing line of demarcation and dressed the part with an aseptic pad of gauze, and not until some days later was the stump clean and the wound healed. A good example of an antiseptic misapplied.

On referring to the last edition of Edgar's *Obstetrics*, I find the dressing recommended is an alternative one. The first is a non-toxic antiseptic powder, such as boric acid, or an aseptic powder, such as sterile starch. I prefer a liberal wrapping of aseptic dry gauze; I do not seriously object to starch.

Referring to earlier work, in the eighth edition of Playfair's *Midwifery*, published 13 years ago, charred linen alone is mentioned as a dressing for the umbilical stump. Winckel's *Text-book on Midwifery*, published in 1890, translated by Edgar, simply advises the application of salicylated cotton. Keating's *Cyclopædia of Diseases of Children*, published in 1890, unlike many modern writers, devotes two pages to the management of the cord of newly-born children. He insists first on the importance of keeping the part dry, so that mummification may rapidly ensue, and he encourages this by compression after its severance and before it is tied. This author then recommends a covering of soft linen, over which is placed a pad of "disinfected cotton." In a chapter on diseases of the newly-born, Emmett Holt advises that dry dressings should invariably be applied, antiseptic gauze or salicylated cotton being preferable to household linen. The worst advice of all, to my mind, I find in the *American Text-book of Obstetrics*. Here not only is boric acid recommended, but daily washing with sterile water is advised! This ultra-antiseptic author would find his teaching very unpopular among obstetric nurses, I am sure.

Now, it seems to me rather peculiar that antiseptics delay separation of sloughs, the umbilical cord included. I believe a real service to antiseptic surgery would result from a scientific inquiry into this subject.

The chief points I would like settled are:—

- (1) Do antiseptics delay separation by destroying the saprophytic organisms which may abound at the line of demarcation? or
- (2) Does their action have any paralysing effect on the phagocytic activity of the leucocytes? Perhaps they do both.

Herein lies the *rationale* of my contention in not employing antiseptics in the treatment of such injuries as cause sloughing. We can, I think, with advantage copy nature, and deal with a sloughing wound as she does with the umbilical cord—that is to say, to promote early separation of the slough by keeping the precincts of the wound and the wound itself as dry as possible. Of course I realise that sometimes this is impossible in certain situations, as on moist, mucous surfaces for instance, such as the mouth. Here antiseptics must be as freely used as the circumstances permit. It is interesting to note the fact, however, that the risk of septic poisoning from the mucous cavities is not so dangerous as on the cutaneous surfaces. This is explained, I think, by the free diapedesis, secrete-

tion and drainage in these situations following irritation or injury.

I am satisfied in my own mind that to keep the wound dry is the one essential, but I am not perfectly satisfied as to the best way of attaining and maintaining this objective. To keep the wound dry is to prevent sepsis, and by early separation of sloughs the danger of sepsis is as quickly excluded. At present I can only endorse the practice of using a liberal amount of dry sterilised absorbent wool of the best quality. This soon loses its hygroscopic properties, and requires changing more frequently than is good for the patient or the healing part.

I would like someone to suggest a substance with which the wool or even layers of gauze could be impregnated which would be not only hygroscopic, but which would keep the dressing dry by a process of hydration.

I certainly can't approve of fomentos or compresses, as drying is impeded by them, especially if waterproof sheeting is used in conjunction with them, as is commonly the case with fomentos.

The following powder has been suggested to me as highly absorbent by Mr. D. J. Clark, chemist:—Calamine (native $Zn_2 Co_3$) one part; precipitated Fuller's earth, seven parts.

If we fail by means of a special dehydrating dressing, would it be possible by any other means to desiccate the sloughs and render them non-absorbent? It might be feasible to touch them carefully with the actual cautery, or to dissect them off in greater part. Whatever we do, we must dry them up and keep them so. Perhaps this would be best accomplished by leaving them exposed to the air. It is a difficult matter, but we must devise a means if we want to bring the treatment of burns and scalds into line with the triumphs of modern surgery.

I intended to review some of the methods of treatment commonly adopted with the object of showing that one by one they can be put aside as inefficient and inadequate to prevent sepsis in any extensive case of burns. As I don't see now that it can serve a useful purpose to do so, I will be satisfied with condemning them, and leave you to defend them if you wish. My remarks will be shorter by the omission.

In conclusion I would draw your attention to the fact that there is a high range of mortality from burns and scalds, especially the former, and that shock and sepsis are the commonest immediate causes of the fatal

termination of these ghastly cases. Shock we treat as best we can; but sepsis! With such advances as surgical treatment has made, can't we do more for sepsis?

Finally, as a parting shot for the ultra-antiseptic, I would like to ask the older practitioners present whether they think there has been any material reduction in case mortality since the introduction of antiseptics as compared with pre-antiseptic days.

(Read before the Queensland Branch of the British Medical Association.)

NOTES ON FOUR SUCCESSFUL INTERSCAPULO-THORACIC AMPUTATIONS.

By W. J. Stewart McKay, M.B., M.Ch., B.Sc.,
Senior Surgeon Lewisham Hospital for Women
and Children, Sydney.

I HAVE already published two of these cases; I merely allude to them now to record the after-history.

The first case was a woman who had an enormous enchondroma growing from the scapula; when removed the specimen weighed 28 pounds. The operation was performed seven years ago; the patient is well and strong, though she says that she very often feels the weight of the tumour dragging her shoulder down.

The second was a young lad who fell on the point of his shoulder and a sarcoma developed soon after, and in spite of the fact that the operation was performed within two months of the accident, the lad died twelve months after the operation from deposits; there was no local recurrence.

The third case was a young man who had lost all power in his right arm. The deltoid biceps, brachialis anticus, supra- and infraspinati were all paralysed after the manner of a subject with Erb's paralysis. He suffered from never-ceasing pain in his arm, and for twelve months had been treated by various physicians for syphilis, of which there was no trace to be found.

On examination I detected a tumour deep down behind the clavicle. After making an incision parallel to the bone, I found a round movable tumour lying lightly on the anterior surface of the brachial plexus, but in no way connected with it. It extended down so far that I was forced to make a second incision below the clavicle and through the pectoral muscle before I could free the tumour below. An examination of the growth by Dr. Barling showed it to be a sarcoma.

The patient left the hospital, but returned two months later, as the paralysis had per-

sisted and the pain had increased. I made an incision above the clavicle, and then discovered a small swelling in the fork made by the union of the fifth and sixth ends of the brachial plexus. I removed these ends and the swelling, and it proved to be a sarcoma also. I could discover no glands enlarged.

Three months later the patient returned again. He was in continual pain, and an examination showed me that there was a tumour behind the clavicle. I suggested the interscapulo-thoracic amputation as the only operation that was likely to rid him of his pain, and give one a chance to completely remove the trouble. He consented. When the operation had been performed and the specimen examined, it was seen that the remaining cords of the brachial plexus coursed over a tumour the size of a turkey-egg, and the growth had completely enveloped the cords in some places.

The patient returned a fourth time, now fat and free from pain, and I persuaded him to allow me to make a thorough dissection of that region of his neck which lay behind the inner end of the clavicle. My search was rewarded by the discovery of a gland the size of a cherry, situated about the region of the first part of the subclavian.

Some months later I saw the patient, and while I could detect no return of the growth, a most remarkable alteration had taken place in the capillaries of the skin of the thorax on the side operated on. The vessels were very dilated, and formed the most complex and fantastic patterns over the whole of the right side of the thorax, both back and front.

The fourth case operated on was a man who had been treated at the Coast Hospital for very extensive cellulitis of the whole of the left arm. The hand and forearm were useless, as the muscles and tendons appeared as though imbedded in cement. I endeavoured to make a set of flexor tendons for him out of silk strands, but the muscles refused to act. I next excised the necrosed head of his humerus, as he had a fistula of the shoulder-joint, which had annoyed him for twelve months. The fistula disappeared after the operation, and he was well for two years. He then returned to the Coast Hospital, and Dr. Wallace discovered that he had a sarcoma of the shoulder-joint. With the able assistance of Dr. Wallace, who really did most of the operation, the interscapulo-thoracic amputation was made, and the specimen showed that there was a sarcoma growing in the shoulder-joint.

Remarks.—All these cases recovered. Three of the operations were performed at the Lewisham Hospital, the fourth at the Coast Hospital. With regard to the steps of the operation, I have elsewhere pointed out that after the third part of the subclavian has been tied one need not bother about the vein; it is more convenient to tie this after we have reflected the pectoral muscles. As there is much serum thrown out I think it is advisable to make an opening in the posterior flap, high up, and drain; drains inserted along the lines of union of the flaps are not sufficient. As the vitality of the flaps is not great I prefer to use gauze drains rather than rubber-tubes, as the mere pressure of the tubes injures the tissues. And for the same reason, while some silk-gut sutures are necessary, horse-hair should largely be employed, as it is better borne by the skin.

THE TREATMENT OF INCREASED INTRACRANIAL TENSION.

By R. Humphrey Marten, M.D. (Cantab),
M.R.C.S. (Eng.), Adelaide, S.A.

As there are a number of papers to be read this evening on such an interesting topic as "brain surgery," some of which are sure to include cases of intra-cranial tumour and abscesses, I thought I would devote the minutes which are at my disposal to making a few remarks about the treatment of increased intra-cranial tension.

I never enter the North Adelaide Hospital without a regret because in the hall you will see a brass memorial tablet to the memory of a reverend gentleman who died there a few years ago in the old building, leaving to the hospital a fairly large sum of money, which helped very materially to the building fund of the magnificent new structure. The gentleman died of a cerebral tumour, probably situated in his frontal lobes, although the symptoms were never sufficiently definite to allow of an accurate localisation, and there was no autopsy. The patient suffered from most acute cephalalgia, attended in the latter stages by optic neuritis and loss of sight. His cries were most pitiable to hear, and why I spoke of my regret in my opening remark was, because, although there was no definite localising symptoms to allow of a successful removal of the tumour, yet by taking away a goodly portion of his cranium it would have been possible to make his end fairly peaceable, probably ridding him of the intense agonising pains and preventing the advent of his

optic neuritis and subsequent blindness. If any of us were to meet with a similar case, I think it would be our duty to strongly advocate a palliative craniectomy.

I am more inclined to urge this treatment after the marked success of the following case, of which I will give you short notes. In 1888 a lady, then aged 16, consulted me about a chronic ozæna, which in the course of time, by the constant use of antiseptic nasal douches, as well as an occasional removal of a sequestrum and curettage, became cured. Before, however, the nose trouble had completely disappeared, headaches came on, not localised but general; at first they would come on about every four weeks and keep the patient in bed for a day or two at a time, and as they were generally accompanied by vomiting of a bilious fluid at their termination, I concluded that they were only ordinary attacks of migraine. Shortly after their onset, the patient began to complain of dimness of vision of the right eye; for this condition she consulted several ophthalmic surgeons, who diagnosed a well marked and increasing neuro-retinitis of the right fundus oculi. The loss of sight gradually increased, so that at present she is practically blind in the right eye, although able to distinguish between daylight and darkness. As years went on the headache increased in frequency and in severity, so that instead of being in bed a day or two during the month she would only be able to be up for a few hours a week, the rest of the time having to lie in bed with the room darkened, suffering so intensely that her life became a misery; the general headaches being accompanied by frequent attacks of vomiting, and owing to this inability to retain food upon her stomach, she gradually became thinner and weaker; ordinary medical treatment was adopted by means of drugs, but the only medicines that ever gave her relief were either antipyrin or phenacetin. Her condition at this time was one of great seriousness.

In 1906, after reading Sir V. Horsley's address in surgery at the British Medical Association meeting at Toronto, I explained to the patient that it was possible to give her some relief by the removal of a portion of her skull and the dura mater so as to relieve the intra-cranial pressure. Dr. J. C. Verco saw the lady with me, and with some hesitation agreed with my proposal, and after a further consultation with Professor Watson, who threw much light on the condition by suggest-

ing that the trouble originated in a sphenoidal sinusitis, I decided to operate.

The head having been carefully prepared after Horsley's method, Dr. G. C. Hayward anæsthetised the patient with chloroform, and with the assistance of Dr. Cudmore I removed, with the largest Horsley's trephine obtainable, a portion of the right parietal bone as far removed as possible from any known meningeal vessels; the parietal region just above the parietal eminence being selected, and the right side was chosen as the only definitely localising symptoms, i.e., the condition of the right eye pointed to that side as being the most affected.

The skull was of ordinary thickness, and on removal of the plate of bone the dura was found to be fairly tense and slightly bulging; a circle of dura mater, somewhat smaller than the trephine hole was removed, a drainage tube of green oil-silk and sterilised gauze was laid over the opening and carried outside the skin wound at the posterior inferior angle, and the flap of skin replaced.

The recovery from the operation was uninterrupted, and from that day to this the patient has slowly improved. She still gets an occasional headache, but her life is now a pleasure and she has gained flesh, and never has to lose an hour of ill health from her former troubles; but, of course, as would be expected, the blindness of the right eye continues.

I think all the symptoms from which this patient suffered can be explained by the study of the base of a skull. In the first place, the ozæna itself, or the treatment adopted for its cure, had set up an inflammation in the sphenoidal sinus; this must have extended through the bone to the dura mater lining the sella turcica and the surrounding parts of the base of the skull, just in the same way that it will spread from the middle ear in disease of that region, but evidently not sufficiently acute to set up an intra-cranial abscess, but only a chronic meningitis. This chronic meningitis gave rise not only to the intense and increasing headaches, but evidently the neuro-retinitis set up in the right eye was due to the pressure as well as to a neuritis spreading along the right optic nerve. The headaches may not only have been due to the chronic basal meningitis but also to a certain amount of obstruction to the right cavernous sinus and the veins entering it. The removal of the plate of bone and the dura mater from the parietal region would undoubtedly relieve the intra-cranial tension, and at the

same time allow a free anastomosis to take place between the intra- and extra-cranial vessels.

This case demonstrates what relief can be obtained by such a simple surgical procedure, and my only regret is that it was not carried out years before; by so doing I should probably have given the patient years of comfort, but I am doubtful if I should have preserved the sight of the right eye, as it was not lost by an ordinary optic neuritis due to increased intra-cranial pressure, but probably by an inflammatory condition passing along the optic nerve and its sheath from the underlying sphenoidal sinusitis.

It has been laid down by Horsley as an axiom that if a patient presents symptoms of intra-cranial pressure, leading on to optic neuritis, even if no other localising symptoms be present, and no relief is obtained by medical means within six or eight weeks (of course, unless the optic neuritis is rapidly leading on to blindness), that a craniectomy to relieve pressure should be performed. Professor Cushing in America puts the limit time at three months instead of two in which medical treatment should be tried. I think we should all try to act up to these dicta.

(Read before the South Australian Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTE.

AIR EMBOLISM—POST-MORTEM NOTES.

A WOMAN, aged 38 years, married, five children. She was in the fourth month of pregnancy, and was said to be using an injection of a hot infusion of cloves when she collapsed, fell forward on to the bed and died in a few minutes. This was at 10 p.m., and the post-mortem was made at 1 p.m. next day. The body was quite fresh—no signs of putrefaction, the weather being exceptionally cool for the time of year. There was a small amount of blood-stained fluid in the pouch of Douglas. The uterus contained a male fetus, the liquor amnii being intact. The placenta was situated on the anterior wall of the uterus. The lips of the external os were slightly ecchymosed. A large dark soft clot separated the membranes from the posterior wall for a considerable distance and from the anterior wall as high as the placenta, the lower margin of which was lacerated, some blood-clot being entangled in its meshes. There was still a fairly thick decidua on the posterior wall of the uterus, and this showed a linear vertical tear of about an inch near the

cervix. A probe could be passed from this tear upwards between the decidua and the uterine wall, and no doubt this injury accounted for bubbles seen beneath the decidua.

A ligature was passed around the large vessels at the base of the heart and the organ removed. On severing the inferior cava a few bubbles were seen in the dark fluid blood. The right ventricle was quite full of a fine bloody froth. The right auricle was distended with dark fluid blood, which contained only a few bubbles. The left auricle and ventricle contained only a very small amount of blood with a few bubbles. Bubbles were also seen in some of the vessels, *e.g.*, in the veins of the broad ligament, the pulmonary, external mammary and basilar arteries, etc.

The lungs were deeply engorged, and there was a fine bloody froth in the bronchi. It was, of course, impossible to point to a particular vein into which the air was forced, but probably it was one or more at the site of the torn placenta.

The picture presented by the right ventricle was, I think, characteristic, and my only regret was that it could not be preserved. I do not mean to imply that quite as well marked a picture is seen in all cases of death from air embolism. I have had other cases, some in conjunction with Dr. Jamieson, in which the history was nearly similar, but the appearances were so confused by advanced decomposition that it was hardly possible to positively swear to the cause of death. It may be that in these cases putrefactive changes are apt to take place more rapidly than usual, owing to the entrance of organisms with the air. In any case in which the history makes such a cause of death possible the right ventricle should, I think, be examined at once before allowing the escape of any blood.

Thomson and Miles in their "Manual of Surgery" state that the results of the entrance of air into the vein are attributed (1) to the collection of air in the right side of the heart, so that the right ventricle has no blood on which to contract; (2) to the passage of air into the pulmonary vessels preventing the entrance of fresh blood into the left side of the heart; (3) to the passage of air emboli to the cerebral blood vessels. Where death occurs so rapidly as in this case death may perhaps be due to syncope brought about by an insufficient supply of blood to the heart or brain or both.

ARTHUR PALMER, M.B.

Sydney.

REVIEW AND NOTICES OF BOOKS.

BLOOD STAINS: THEIR DETECTION AND THE DETERMINATION OF THEIR SOURCES. By Major W. D. Sutherland, M.D., I.M.S. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

This little book, which contains all that is worth knowing of up-to-date work in connection with the examination of blood-stains, is most appropriately dedicated to Orfila and Ehrlich. Although it is true that until comparatively lately any subject of medico-legal import has failed to attract the attention of the general practitioner, yet the question of the determination of the source of origin of a blood-stain (now so accurately determinable, thanks to painstaking researches by biological methods) must of necessity prove of interest to even the most superficial of workers in the field of medico-legal science. Until quite recently all that it was possible with accuracy to say in connection with a blood-stain was that it was either of mammalian origin or not. Now, however, all that is changed, and it is possible to narrow the sources down to the statement that the stain in question is not only mammalian but that it has its origin from either man or a member of the higher anthropoid apes.

The first five chapters are devoted to such questions as the solubility of blood-stains, their chemical and spectroscopic tests, and their microscopical characters. It is in the last five chapters of the book that the truly modern and most interesting particulars are contained. In these chapters are to be found practically all that is known of the biological tests that have made it possible to diagnose with such accuracy the source of origin of a blood-stain.

This book will prove of great interest to all those who take an interest in medico-legal work, but it should also be read by the general practitioner, as a knowledge of its contents may at any time be required of such in the witness-box. The book is well printed and admirably arranged, and contains a most complete bibliography.

TRYPANOSOMES AND TRYPANOSOMIASES. Laveran and Mesnil. Translated and much enlarged by David Nabarro. London: Baillière, Tindall & Cox. 1907. Sydney: L. Bruck. Price, 21s.

The three years that have elapsed since the publication of Laveran and Mesnil's "Trypanosomes and Trypanosomiasis" have been productive of many valuable contributions to our knowledge of the Trypanosomatidae. To render into English this important work, which embodied all the main facts concerning trypanosomes at that time known, and to include in their appropriate places in the translation the many hundreds of fresh observations accumulated during the succeeding three years—has been the task which Dr. Nabarro has set before him, and which he has accomplished with marked success. The translator's additions, distinguished by square brackets, have more than doubled the bulk of the original work, and the result has been to supply a volume of reference which has lost nothing of the authoritative statements of Laveran and Mesnil, and has gained in usefulness by the care with which the supplementary matter has been brought up to date.

The exhaustive nature of the work may be inferred from a summary of its contents. Beginning with a useful account of the technique required for the practical study of the trypanosomes, the authors go on to discuss their zoological position and relationships among the Protozoa. A systematic and detailed account then follows of the more important forms of trypanosome infection, including (1) the world-wide

infection of the rat, (2) infections of other small mammals, (3) Nagana or Tse-tse fly disease and allied conditions, (4) infections of horses in the Gambia, (5) Surra, (6) Mal de caderas, (7) Dourine, (8) Galziekte or gall-sickness, (9) Sleeping sickness and other forms of human infection. A chapter is devoted to the treatment of trypanosome infections, and a good account is given of the administration of atoxyl and other new drugs. The trypanosomes of birds, of reptiles, of batrachians, and of fishes receive very full consideration in separate chapters, and the volume concludes with an account of the tse-tse flies and their trypanosomes. The value and interest of the work is enhanced by a good index, dealing separately with the subject matter and with the authors' names. The abundant literary references, scattered throughout as footnotes, form a most necessary part of such a work.

Amid so much that is excellent it seems invidious to take exception to a few minor points. Yet it is unfortunate that a work of this high scientific standing should lend its support to the use of the term "trypanosomiasis" as indicative of a trypanosome infection. When the animal body is invaded by metazoan parasites, the condition is expressed by the appropriate term ending in "iasis," as for example, helminthiasis, trichiniasis, filariasis; but an infection by parasitic protozoa is more properly expressed by the termination "osis," as in spirochaetosis, spirillosis, and trypanosomosis. There is no reason why the trypanosome infection should have a designation that is alien to that of all other protozoal conditions.

Again, while it is fully recognised that the work deals fundamentally with trypanosomes from the point of view of protozoology, nevertheless many accessory matters are introduced—historical, geographical, symptomatological, pathological and therapeutic. The object undoubtedly is to render the account of each infection as complete and as reliable as possible. It must be said that this object has been most satisfactorily attained. Nevertheless in one respect there has been an accidental omission. The writer of this criticism was desirous of finding what work had been done on the reactions of the blood cells in trypanosome infections, and, in particular, what changes had been described in the leucocytes. Not only, however, did the word "leucocyte" fail to appear in the index, necessitating a laborious search throughout the text, but the references in the text to the leucocytic and other blood changes were somewhat meagre, in view of the importance and interest attaching to this part of the subject, and in view of the detail with which the other parts are treated.

The translator has not permitted himself to make any alteration in the original text of Laveran and Mesnil, but has confined himself to supplementing deficiencies by interpolated sentences and paragraphs. There are, of course, advantages and disadvantages inherent in this method of treatment. Among the advantages must be reckoned the preservation of Laveran and Mesnil's authoritative presentment of the subject, and the careful sifting and arrangement of more recent observations by Dr. Nabarro. Among the disadvantages are the patchwork character of the composition and the mental jolts inseparable from the method. One most interesting and suggestive part of the subject has suffered much from this treatment—the discussion of Schaudinn's observations and conclusions on the relationships of Trypanosoma to Spirochaeta and to Halteridium, and the criticism of Schaudinn's results by Novy and McNeal and by others. Schaudinn's investigations constitute one of the most fascinating

chapters in protozoology, and merited special presentation. That the method adhered to would prove unsatisfactory was apparently recognised by Dr. Nabarro, if one may judge from a footnote on page 42.

When all is said and done, however, the fact remains that the book embodies a scientific study whose value and interest it would not be easy to over-estimate, and Dr. Nabarro is to be congratulated on his achievement. He has put within the reach of English-speaking people the most exhaustive and most recent compendium of our knowledge concerning trypanosomes. No practitioner of medicine can afford to remain blind to the increasing importance of the protozoa as infective agents, malaria, syphilis, amœbic dysentery and abscess, kala-azar, and possibly also vaccinia and variola need only to be named in illustration. Though trypanosomiasis yields in importance to the first two of the above-mentioned conditions, yet it must be recognised that sleeping sickness has already paralysed trade and destroyed the population throughout large tracts of country, and that in their pathological interest the trypanosome infections are second to none.

PROGRESSIVE MEDICINE, Vol. iii., September, 1907: A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 290 pages, with 15 engravings. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00. Philadelphia and New York: Lea Brothers & Co.

The present volume represents an attempt on the part of an enterprising firm of publishers to assist the medical practitioner in keeping abreast of the times, and we consider the result highly satisfactory. It is a quarterly publication, and the volume before us contains a review of the quarter's work in diseases of thorax, dermatology and Syphilis, Obstetrics, and Diseases of the Nervous System.

To Dr. William Ewart has been entrusted the article on "Diseases of the Thorax," and we find in it references to all the latest work and discussions on the burning questions of the day. Specially valuable is the epitome of the new work on tuberculosis. Numerous references are also given to work on the heart and arteries, a good summary of the views of prominent workers in these departments, enabling one to review the whole subject in a short time.

"Dermatology and Syphilis" are treated by Dr. W. S. Gottheil. He remarks on the great change which has taken place in the last year in the attitude of the X-ray students in dermatology, the tendency being to limit the sphere of the X-rays more and more and to realise the dangers of them. Many subjects are discussed, and the article is well illustrated. All that is new in the pathology and treatment of syphilis will be found here.

In the section on "Obstetrics," which occupies 100 pages of the volume, Dr. Edward P. Davis has succeeded in giving us a true monograph full of the latest and best that is known in this department.

In the section on "Diseases of the Nervous System," Dr. W. G. Spiller has done well. There is an excellent summary of the recent article of Marie's on aphasia, with Dejerine's criticism, and the work of others on the same subject. The various symptoms of brain tumour and their localising value, recent work on sensory disturbances, and reflex action are also included.

Altogether we have nothing but praise for this volume, and consider that every worker in the field of medicine or surgery will find much not only to interest but also to instruct and assist him in his daily work.

One word of criticism may be allowed. Throughout the volume we fail to find a single reference to any Australian journal or the work of any Australian, unless it has happened to be published in an English or American publication. Surely the excellent work which has been done by many Australians demands some consideration at the hands of our American *compères*, and we hope that in future volumes of this work this defect will be remedied.

ESSENTIALS OF HUMAN PHYSIOLOGY. By D. Noel Paton. Third edition, pp. xv. + 477. Edinburgh and London: W. Green & Sons. 1907. 12s net.

This is the third edition of a manual designed to put before medical students as succinctly as possible the essential facts of human physiology and to emphasise specially those parts of the science which are of cardinal importance in medicine and surgery. The edition has been revised extensively and several portions have been rewritten. The parts altered deal with the chemical constitution of the proteins as elicited by Emil Fischer, with the physiology of the neuro-muscular mechanism in the light of Sherrington's exposition and Head's investigations, with the measurement of blood pressure in man, with the digestion and absorption of proteins in the alimentary canal, and with the means regulating the respiratory apparatus.

The author extends his thanks to Professor Cathcart for reading the proofs of those parts concerned with the chemical aspect of physiology. However, a number of errors of a chemical nature remain to be erased in subsequent editions. Thus caseinogen is called a nucleoprotein, although it does not yield nucleic acid or xanthin derivatives.

The text is clearly and concisely written and is illustrated by a valuable series of schematic sketches in addition to the usual figures. The volume furnishes a good account of most of the recent changes in the point of view of physiological questions. It can be confidently recommended to the practitioner who wishes to orientate his opinions in conformity with recent experiment. As a text-book for the student it is rather too concise, and it is lacking in the discussion needful to place before the student the various aspects from which a problem should be viewed.

A TEXTBOOK OF MINOR SURGERY. By Edward Milton Foote, M.D. New York and London: Appleton and Co. 1908. Price, 21s.

This is one of the few books which can be said to deal with the everyday matters of what are generally understood as minor surgery. For operative work in connection with lesions demanding a little more skill and practice the reader is referred to larger works. It is probably a book which would suit the general practitioner who has a very small medical library; otherwise almost all the items contained in it would be found more fully and more completely dealt with in some of the books on general surgery or in books dealing with special subjects. At the same time, the man in a hurry will often find practical details tersely stated which will relieve him of the necessity of a laborious search in order to obtain an authoritative opinion about a trifle of which he is in doubt. Whether the encouragement of this sort of casual study is advisable or not is another matter.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH MAY, 1908.

THE PROPHYLAXIS OF SYPHILIS.

THE successful inoculation of the anthropoid apes with syphilis in 1903 by METCHNIKOFF and ROUX, and the subsequent discovery in 1905 of the *spirochæta pallida* in syphilitic lesion by SCHAUDINN, have given a new impetus to the study of a disease which is, and has been for centuries, a terrible scourge of the human race.

In a small book written by Dr. PAUL MAISONNEUVE,* we have a good account of the experimental work which has been done in the inoculation of syphilis, and on the method which has been found successful in preventing the invasion of the system by the *spirochæta* after inoculation.

In the course of a communication to the Academy of Medicine in Paris on May 8th, 1906, M. METCHNIKOFF, speaking on behalf of ROUX and himself, referred to some new facts concerning experimental syphilis. Having obtained satisfactory results in the prophylaxis of syphilis in experiments on 12 monkeys, they felt confident in applying the same method on man. A young medical student, who had never had syphilis, offered himself for the experiment. On the left side of the sulcus coronæ three parallel scarifications were made with a scarifier smeared with syphilitic virus. The latter was obtained from a syphilitic chancre of one month's duration. Immediately afterwards, and by the same method, the right side of the sulcus coronæ of the medical student was inoculated with virus derived from an indurated chancre

of about ten days' duration in a patient who had had no treatment. The same virus was inoculated into the eyebrows of four Java macaques. One hour after the inoculation of the virus the lesions of the student and of one macaque were rubbed during five minutes with a recently prepared ointment containing 10 grs. of calomel and 30 grs. of lanolin. In the other macaque, 20 hours after inoculation, the eyebrows were thoroughly rubbed with the same ointment. The other two monkeys were left untreated. The medical student and the monkey who were treated at the same time presented no sign or symptoms of any syphilitic lesion after the lapse of six months. The monkey who was treated 20 hours after inoculation presented a primary chancre of the eyebrow after an incubation period of 39 days, and the two monkeys untreated presented typical syphilitic lesions at the site of inoculation after an incubation period of 17 days. METCHNIKOFF claimed that these experiments proved that calomel ointment applied one hour after an inoculation of syphilitic virus is capable of preventing the onset of the disease quite as much in man as in the monkey; and also that the ointment loses its preventive influence within 20 hours after the inoculation. Similar satisfactory results have been obtained in other cases of direct inoculation of the virus in man.

It is important to bear in mind that to contract syphilis an individual must present some loss of continuity in his integuments, and that all syphilitic lesions, primary, secondary, and tertiary are alike contagious and inoculable; and these two facts illustrate the risk which is run by any one, whether a medical man, a nurse, or dentist, who has to deal with syphilitic patients.

Fortunately, owing to the discovery of the organism, it has been possible to study and define the distribution of the virus in the different lesions of syphilis, and it is now possible to act on the virus deposited on the

*The Experimental Prophylaxis of Syphilis, by Dr. Paul Maisonneuve. Containing the results of the experiments on the subject carried out at the Pasteur Institute by Professors Metchnikoff and Roux. Translated by Fernand L. de Verteuil, M.B. (Edin.), Surgeon R.N. Bristol: John Wright & Co. 1908.

superficial layer of the skin and abort the disease as long as the virus has not invaded the organism. All experiments tend to show that the time during which the disease remains local and is capable of being influenced by prophylactic measures is relatively short, and that it is much too late to prevent the infection of the organism when the chancre has appeared. Hence the failure which has attended previous effort to abort the disease by excision of, or cauterising the chancre.

The practical conclusion to be drawn from this work is that every one who has been exposed to the danger of contracting syphilis, whether by the ordinary method or extragenitally, should *immediately* resort to the use of calomel ointment, and this should be rubbed in thoroughly for at least five minutes. The formula which these authorities favour is: Calomel gr. 33, vaselin (*anhydrous*) gr. 10, lanolin (*anhydrous*) gr. 67.

A further practical application of these results has just been made in France. The Under-Secretary of State for War in France has issued a circular with regard to the prophylaxis of venereal disease in the army. Amongst other measures he orders the issue to all the men of calomel ointment, which is to be served out in small wooden boxes containing five grams of ointment. If the results which have so far been obtained are confirmed, the profession will have in its hand a most potent remedy for the prevention of an enormous amount of physical, and mental suffering; but the necessary measures for carrying out this treatment can only be taken after much enlightenment of the general public on the subject.

PROPOSED AMENDMENT OF THE MEDICAL ACTS.

THE question of the necessity for the amendment of the existing Medical Act of New South Wales has been under consideration of

the Council of the Branch of the British Medical Association in the State for some time. After careful consideration, a report was submitted by a sub-committee embracing certain suggestions for the amending of the law regulating medical practice, and approved. These suggestions were subsequently fully considered by the Medical Board, and as a result of the deliberations a deputation representing the medical profession waited the Chief Secretary to urge upon the Government the necessity for the amendment of the Medical Act which they suggested. The proposed alterations only embrace what is already recognised as fair and equitable in the Australian States and in other countries. It is desired that reciprocal arrangements with foreign authorities should extend only to those countries which recognise the diploma of the University of Sydney; that no medical practitioner coming to this State from a foreign country should be registered and allowed to practice here unless equal facilities were granted in his country to graduates in medicine of the University of Sydney. It was also suggested that unregistered and legally unqualified practitioners should not be allowed to recover fees at law. Many other important amendments were suggested, but the two we have specified seem likely to be the most contentious judging by the reply given to the deputation by Mr. Wood, and by the attitude adopted by the *Sydney Daily Telegraph*.

Under the title "Professional Unionism," a leading article appeared in that journal last month criticising the attitude of the deputation, and (as is usual with the lay press when it deals with matters affecting the medical profession) manifesting a good deal of ignorance on the question, and attacking the profession for taking up such an unrighteous attitude. The writer says: "The idea seems to be that the patient has no rights, and that competition with the organised profession is to be

snatched by means of monopoly at home and protection against the foreigner." A more grossly unfair representation of the attitude of the profession could hardly be written. Moreover, the writer seems more concerned with the "rights" of the unqualified practitioner, in other words the quack, who must be carefully considered and defended. But what about the "rights" of his victim? The patient has a "right" to be defended from the unscrupulous greed of the quack, even though he may at first have had faith in his heaven-born genius and preferred treatment at his hands to that of the qualified and trained practitioner. And our contention is that the general public, who are ignorant enough of medical matters, should be assisted by law to know and to secure efficient treatment at the hands of the thoroughly trained and educated medical men.

As regards the principle of reciprocity with foreign countries, we think that our native trained practitioners have also "rights" to be considered. It is not fair that they should be compelled to go through a five years' course of study before qualification and registration, and then have to compete with foreigners who may come here with qualifications which would not enable them to practice in their own country. And in seeking to amend the Act so as to secure reciprocity, the profession is only seeking what has been in vogue in Great Britain for many years. We hope that our Legislature will see the justice of our request, and that an amended Medical Act on the lines suggested by the deputation will soon have a place in the Statute Book of this State.

THE MONTH.

Medical Registration in Victoria.

When the Victorian Medical Act of 1906 was before Parliament a special provision was inserted at the instance of a member of the Legislative Council, in the interests of the Melbourne Homœopathic Hospital, which im-

ports graduates from the homœopathic schools of the United States to fill positions on the medical staff. Under the Victorian law no medical man can be registered as a practitioner unless he has completed a five years' course at the Melbourne or any other university insisting on a similar course of thorough training. The provision inserted in the Victorian bill allowed that one homœopathic graduate might be admitted each year, provided he came from one of the four-year schools of Boston or New York. A case has recently been before the Melbourne Medical Board which shows the possibility of an abuse of the spirit of the Medical Act under this provision. The following are the facts as stated by the Medical Board in a communication to the Chief Secretary:—"A student left Victoria for America on August 27th, 1906. He had previously attended in the years 1905 and 1906 lectures on several single subjects, but he was not a matriculated student, and passed no examination while at the University. In July, 1907, he returned to Victoria with the qualification of M.D., Boston, applied for registration, and, under section 7 of the Medical Act, 1906, the board had no alternative but to add his name to the register as a duly qualified medical practitioner in Victoria. In these circumstances the board desires the repeal of so much of section 7 of the Medical Act, 1906 as relates to homœopaths, in order that all applicants for registration shall have the same amount of training (five years) as is required by the Melbourne University authorities." Subsequently a deputation of medical practitioners waited upon the Chief Secretary to urge the necessity for the amendment of the Act, so that no one should be registered unless he had had a five years' training. In reply, the Chief Secretary said the Government must look at the matter not only from the point of view of medical gentlemen, but also from that of the public. There was no doubt but that the section referred to made a loophole in the main principle of the bill. Gentlemen representing the Homœopathic Hospital had waited upon him in a semi-official capacity, and had stated that there was another side to the question. Of course they would make their representations in public, and he would then take the matter to the Cabinet, where it would be given serious consideration.

What the "other side" to the question the gentlemen representing the Homœopathic Hospital were able to present we do not know, but we feel sure that all medical practitioners

recognise the necessity nowadays of at least a five years' course of medical study before qualification, and will support the profession in Victoria in using every effort to secure the repeal of this section of the Act. At the same time we fail to see that the Medical Board were compelled to register this gentleman simply because he presented the diploma of M.D., Boston, when it was proved conclusively that his course of study only extended over about two and a-half years. As the section of the Act under discussion recognises the four years' course schools of New York and Boston, it is presumed that it was intended that the applicant for registration under this section should have pursued a four years' course of study; and we think that the Board would have been within their legal rights and have complied with the spirit of the law if they had refused registration in this case.

Medical Men and the Law.

According to a report in the Sydney *Daily Telegraph* of April 15th the Adelaide City Coroner, Dr. Ramsay Smith, in summing up the evidence in a case of death after alleged illegal operation, made some comments on the duties of medical men in connection with cases of this nature. He is reported to have said that "it was the duty of the medical profession to report to the police deaths due to other than natural causes. Further, when they found any person dying from the effect of any violent or illegal action, the police should be informed, so that they might take any action deemed necessary regarding the holding of a court or taking dying depositions. There was no such privilege between doctor and patient as existed between solicitor and client. The law recognised no medical privilege. The professional abortionist who advertised his or her profession in vague terms, luring unhappy victims to their destruction, was not yet to be sheltered by any phase of so-called medical morality. A practitioner had his duty to the public as well as to the patient, and even his 'fancy' morality should be the means of placing him in the dock as an accessory before the fact or after the fact. He might find consolation in the fact that the law was not the protector of a professional or semi-public abortionist. The duty of a person—whether medical practitioner, nurse, or ordinary individual—was to communicate with the police when the interests of justice required such action."

This question came before the New South Wales Branch of the British Medical Asso-

ciation some years ago. A burglar who had entered a house in one of the suburbs was shot in the back by the lady of the house, but managed to escape. The police requested any medical man who might be consulted by the burglar for his injury to at once communicate with them, so that he might be arrested. It was then considered that such a disclosure would be a violation of the principle of professional secrecy, and it was considered advisable not to comply with the request of the police. We still think that such was the proper course to adopt, and we cannot agree with the coroner in his remarks. No medical man can be called upon to act the detective in the course of his professional work.

Infantile Mortality and the Milk Supply.

In the course of an address delivered before the Victorian Council of Women in Melbourne last month, Dr. A. J. Wood pointed out that out of the deaths of 2537 infants in Victoria not 12 months old, 700 at least died of diarrhoea, the result of the use of unsound milk. The figures for the last five years showed that Victoria had a higher death-rate per thousand of infants than any other State but Western Australia, the figures being:—Western Australia, 122; Victoria, 94; New South Wales, 93; Tasmania, 90; Queensland, 89; South Australia, 82; and New Zealand, 73. The less crowded centres showed better results than the more populated. The death-rate per 1000 births in Melbourne and suburbs was 113.5, as against 79.2 for the remainder of the State. The question was how this excessive infant mortality could be checked. He referred to the infants' milk depôts in Rochester and other places in the United States, in France and in England as effective means of saving infant life. These depôts, which were managed by municipal authorities, took stringent measures for absolute cleanliness at special dairies, and in addition to central depôts had distributing agencies, which were under the supervision of nurses. The milk was pasteurised, or sterilised, and sent out in bottles also sterilised. In France there were milk dispensaries, which had a doctor in attendance, and were visited by mothers daily. There was a small loss in many instances on these institutions, but it was possible, he thought, that they could be made to pay. He suggested that the municipalities of Fitzroy, Brunswick, Melbourne City and Collingwood, in which the infant mortality was high, might well take up this very important subject. The address caused

an animated discussion, in which several ladies warmly supported the suggestion. Lady Talbot suggested that the matter might be carefully considered by the Council to see if these infant milk depôts could be established in Melbourne, either by the municipalities or by private enterprise.

The Therapeutic Value of Whisky.

The weekly edition of the *Times* of March 6th contains a report of the proceedings of the Royal Commission on Whisky. Amongst those who gave evidence was Dr. W. Murrell, physician to Westminster Hospital, London, who stated that "until recently, for 20 years whisky almost entirely took the place of brandy in medical practice in this country as an alcoholic stimulant. This was certainly the case in hospital practice in London. In the last year or two, owing to the uncertainty as to the quality of whisky supplied, brandy had to some extent regained its position. Whisky was employed as a remedial agent in the treatment of all the specific fevers, such as influenza, typhoid, or enteric fever, and in acute pneumonia. Its beneficial effects were due not so much to the alcohol which it contained as to the by-products, especially the ethers. The rectified spirit of the pharmacopœia was not used for this purpose and would be comparatively of little value. Silent spirit in this connection was also useless. What was required and what was used by the medical profession in such cases was pot still whisky. Whisky was recommended by the medical profession for patients, especially those advanced in years, who suffered from dyspeptic, gouty, and debilitated conditions generally due to impaired digestion, enfeebled heart, weakness, and slowness of the circulation. In all these cases the by-products of whisky were of extreme value and exerted an important therapeutical effect which was not met with as the result of the administration of alcohol equivalent to silent spirit. In the last two years he had tried the effect of rectified spirit of the pharmacopœia on patients suffering from typhoid and pneumonia, and found no beneficial effect. He had then tried pot still whisky and found a marked beneficial effect. Speaking for men in his own class of life both in hospital and private and consulting practice, he asserted that the public considered that Scotch and Irish whisky meant the product of pot still derived from malted barley, and as regarded Ireland, mixed

with unmalted barley and small quantities of other indigenous corn. He did not consider that patent still spirit, mixed or not with pot still spirit, was what men in his class of life considered as Irish or Scotch whisky, and they would not knowingly buy or drink it. He did not consider that patent still spirits deserved the name of whisky. Pot still whisky improved by age because in it the by-products increased and developed, while silent spirit improved but little, because there was nothing in it which was capable of improvement." We are not disposed to question Dr. Murrell's statement on the benefit to be derived from the use of whisky being greater than that obtained by the administration of rectified spirit, but we think that in the vast majority of cases of typhoid fever, pneumonia, and infectious fevers, there is no indication for the use of whisky, and that hypodermic injections of strychnine, either alone or combined with digitaline, gave more lasting and more beneficial results. In some of the debilitated conditions he describes there is no doubt that good whisky may be of much service in improving the appetite and assisting digestion.

The Administration of Anæsthetics at the Melbourne Hospital.

The question of the appointment of a special anæsthetist to the Melbourne Hospital is at present under the consideration of the committee of management of that institution. It appears that at present there is no one on the staff whose duty it is to administer or supervise the administration of anæsthetics, and that the surgeons have to depend on the chance of securing an anæsthetist. At least such is the statement of the chairman of the committee, and as he considers—and we think rightly so—such a system undesirable, he has called for a return of all operations at the hospital during the past six months, and the names of the anæsthetists who attended at the operations. Considering the large number of anæsthetics that are required nowadays in any large hospital, and the element of risk which attaches to the administration of every anæsthetic, it is certainly more desirable that a skilled anæsthetist should be on the staff who should be responsible for the selection and administration of every anæsthetic, and the Melbourne Hospital Committee would be acting in the interest of all if they made such an appointment without delay.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A GENERAL meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on April 24th. The Vice-president, Dr. H. Critchley Hinder, presided, owing to the unavoidable absence of the President, Dr. G. H. Abbott. There were about 50 members present.

The election of the following new members was announced:—Drs. Oliver Latham, Rydalmere; C. E. Flashman, Tenterfield; T. Linn O'Reilly, Sydney; R. S. E. Todd, Sydney; James F. Walton, Sydney; and the following gentlemen had been duly nominated for membership:—Drs. Edwin Claude Chisholm, Riverstone; C. W. Maher, St. Vincent's Hospital.

Dr. SINCLAIR GILLIES read a paper on "The Calmette Ophthmo-reaction in the Diagnosis of Tubercular Disease."

Dr. MILLS expressed his appreciation of the valuable paper of Dr. Gillies that he had listened to. He said it was interesting to note the successive steps that had been made in the diagnosis of tubercular disease. At one time we only had the ordinary clinical methods of examination, then owing to Koch's epoch-making discovery of the tubercle bacillus, the examination of the sputum extended our means of diagnosis. Next came tubercle injection—subcutaneously—afterwards Pirquet's method, and now we have in the ophthmo-reaction the latest addition to our means of diagnosing tuberculosis. All this spelt progress—progress in matters medical; so that it was at any rate gratifying to physicians that all the advance was not made on the surgical side. Now, in the ophthmo-reaction the patient was not made ill, nor was he incapacitated from work or laid up. In testing for tuberculosis by means of tuberculin inoculation, the patient might be temporarily greatly upset, as happened in one case of his with tubercular glands in the neck, so that the ophthmo-reaction has a distinct advantage in this respect. He thought, however, that the title of the paper was not justifiable. Calmette was not the discoverer of the ophthmo-reaction. That, however, must be ascribed to Wolff-Eisner. Calmette certainly brought it prominently before the profession and established it as a clinical method of diagnosis. As Dr. Gillies has shown, and as far as he could see, Dr. Gillies' results were in the main confirmatory of other observers, this test was a delicate one, but it had to be done with a certain amount of care. One case of Dr. Gillies had developed phlyctenular ulceration of the cornea; this experience was not new. Other observers had met with it, but it left no permanent ill effects. He must say that so far as he could learn, from rather extensive reading, and from his own limited observation, it was not necessary to use Calmette's material. A suitable dilution of the "old tuberculin," say to one per cent. gave a solution which, instilled into the eye, would give the ophthmo-reaction. There need be no fear that the glycerin contained in the "old tuberculin" would cause any irritation. It had been shown that a ten per cent. solution of glycerin dropped into the eye caused no irritation. So it was unnecessary to resort to methods of precipitation and solution. It seemed to him that the observations of others went to show that the ophthmo-

reaction had a sort of prognostic value. Advanced cases, cachectic, about whose diagnosis there could be no doubt, often failed to react, and in rapidly progressing cases the reaction was oftentimes extremely slight, so that it appeared a well marked reaction indicated a condition that might be looked upon as favourable. That, however, needed further investigation.

Dr. M. MCINTYRE SINCLAIR considered the ophthmo-reaction of Calmette or Wolf-Eisner presumptive evidence of tuberculosis, but there was a distinct margin of error which would have to be defined by further evidence in association with post-mortem records. He thought in certain cases the reaction was at least partially due to the irritant effect of the toxin on the conjunctiva apart altogether from the specific effect. In one case, which in his hands had gone through a course of open air treatment combined with tuberculin, he found after a five months interval that the case failed to react to successive injections of $\frac{1}{2}$, 1, and 5 milligrams of old tuberculin; nevertheless a subsequent installation of Calmette's solution, roughly equivalent to $\frac{1}{2}$ of a milligram, produced a distinct reaction. In apparently healthy people a first installation might be negative, and a subsequent one, as long as 51 days afterwards, positive, owing to the development of what had been termed the period of anaphylaxis or hypersusceptibility. The reaction, especially in the latter cases, might be anything but harmless, and cases of subconjunctival hæmorrhage and corneal opacity had been reported. There were certain cases with fever where the subcutaneous injection of tuberculin was inadmissible, e.g., suspected miliary tuberculosis and meningitis, and it would be interesting to know how far the ophthmo-reaction could help them in such cases. He understood Dr. Gillies to say that in his case of suspected tubercular meningitis the reaction was negative. Personally he preferred the subcutaneous test wherever possible, and in suitable cases it could be given without danger. The local reaction set up might be the means of not only determining the presence of tubercle, but also the actual site of the focus. He considered the various tests of value in the following order—the subcutaneous injection first, ophthmo-reaction second, and Von Pirquet's cuto-reaction a bad third. But he insisted that none of the tests should be considered final except in association with physical signs or other indications pointing to the probability of a tubercular focus.

Dr. GUY GRIFFITHS congratulated Dr. Gillies on his paper. He thought too little emphasis had been laid on the necessity of making sure that the conjunctiva was healthy, as local irritation might produce an effect. It was inconsistent to take the hypodermic injection of tuberculin as a standard and concluding that the ophthmo-reaction was as valid. Koch laid as much stress upon local reaction as upon hypodermic reaction. If there was marked local reaction there was marked general disturbance; this led to the conjunctiva being selected as the site of instillation. Dr. Gillies rightly laid stress upon the reaction in patients who had suffered from typhoid. He (Dr. Griffiths) agreed with Dr. Mills that the method detailed was unnecessary.

Dr. C. MACLAURIN detailed three cases from actual practice where the Calmette ophthmo-reaction had settled the diagnosis.

Dr. SINCLAIR GILLIES, in reply to Dr. Mills, pointed out that no untoward results had followed the first installation. Risk of severe reaction was on repetition or on subsequent injection of tuberculin, hence the importance of performing these operations within the anaphylactic latent period. As regards the contention

that 2 per cent. dilution of old tuberculin was just as good, he had had no personal experience with that method, but judging from the results of other observers, the margin of error seemed greater than with Calmette's serum. This was to be expected, as the 2 per cent. dilution of old tuberculin was only one-fifth the strength of Calmette's solution. He could not agree that the presence of a reaction meant necessarily active process going on, as he had shown that the sensitiveness of the tissues lasted for some time after active processes ceased. A negative reaction in a clinically healed case meant not only that the disease ceased but time enough had intervened for the tissues to gain their normal condition. He agreed with Dr. Mills in his doubts as to the value from a diagnostic standpoint of repeated small injections of tuberculin, as he thought it might be possible to sensitise the tissues sufficiently to get a reaction. Dr. Sinclair's case, where $\frac{1}{2}$ mg., then 1 mg., then 5 mg. tuberculin were given without reaction, and a few days later an ophthalmo-reaction was obtained probably meant that Dr. Sinclair had sensitised the normal tissues so that the ophthalmo test performed after the latent period was positive. Von Pirquet's reaction seemed open to several sources of error, and was difficult to interpret correctly. He did not agree with Dr. Griffiths that the presence of the least conjunctivitis invalidated the test. Most people who were exposed much were found in hospital practice here to have some chronic conjunctivitis. Yet these cases reacted, though, of course, they were not so satisfactory as those with normally pale conjunctiva. As to the inconsistency in taking tuberculin injection as the standard, and then saying it was as good, it is always difficult to get absolute finality. Even negative finding post-mortem does not exclude the possibility of the overlooking of some minute focus. In the case of tuberculin we know fairly well the margin of error, so it forms a good standard for comparison.

Dr. W. T. CHENHALL read a paper on "Disturbances of Menstruation."

Dr. GORDON CRAIG did not agree with Dr. Chenhall's statement that if in examination the finger impinged on the anterior lip of cervix that the position was normal, as the cervix may be normally situated in retro-flexion, and in such cases the fundus had even been mistaken for an ectopic pregnancy.

Council Meeting.

The Council met at the Association Rooms on Tuesday, April 14th, 1908, at 8.30 o'clock. Present: Drs. Abbott, Hinder, Todd, Crago, Dick, Palmer, Brady, Clarence Read, Maitland, Worrall, and MacCormick.

The minutes of the Council meeting of March 10th were read and confirmed.

The Hon. Treasurer reported the following credit balances:—General account, £748 8s 4d; GAZETTE account, £498 7s 9d.

The Hon. Secretary read the report of the deputation which waited upon the Hon. the Chief Secretary on April 13th, 1908, *re* amendment of the Medical Practitioners' Acts. Received.

The Hon. Secretary read a report on the Hon. Secretary's work during the past year. Received.

Election of Members:—Dr. Oliver Latham, Rydalmere; Dr. C. E. Flashman, Tenterfield; Dr. T. Linn O'Reilly, Sydney; Dr. R. S. E. Todd, Sydney; Dr. James F. Walton, Sydney.

Affiliation of existing Medical Associations to the Branch:—Letters from the Hon. Secretary, Dr. Cribb (Western), Dr. Carruthers (Balmain), Dr. Lawes

(Western Suburbs), Dr. Bligh (Northern Suburbs), Dr. Savage (Eastern Suburbs), Dr. Lang (Border), were read and received.

Letter from Dr. Rhodes, of Tingha, with reference to canvassing for members. Received.

Letter from a member in reference to proceedings by an unregistered practitioner for the recovery of fees for services; also letter from the Under Secretary, Department of Attorney-General and Justice, stating that he did not think it advisable to take proceedings against an unregistered practitioner for infringement of the Medical Practitioners' Amendment Act, since, in his opinion, proceedings were not likely to be successful. The Hon. Secretary reported that an unregistered practitioner had been fined £50 and costs for using the title "physician."

Letter from the Medical Secretary *re* Organisation Committee stating that the Branch was entitled to two representatives on the Central Council and one representative at the annual representative meeting.

Letter from Medical Secretary *re* question of ethics.

Letter from the Hon. Secretary of the Friendly Societies' Association stating that the Foresters had not agreed to a uniform agreement being adopted at present.

Dr. TODD proposed—That Dr. Palmer be appointed Hon. Secretary; seconded by Dr. Clarence Read. Carried.

Dr. CRAGO proposed—That the recommendations of the Hon. Secretary in his report, with reference to the appointment of a member of the Council to undertake the business of "ordinary meetings" and "clinical evenings," and allowing the Hon. Secretary the services of a stenographer and typewriter as required, be approved. That Dr. Hinder be appointed Medical Secretary, to undertake the business of "ordinary meetings" and "clinical evenings." Carried.

Dr. DICK proposed—That Dr. Crago be Hon. Treasurer for the ensuing year. Dr. Palmer seconded. Carried.

Dr. DICK proposed and Dr. PALMER seconded—That Dr. Rennie be Editor and Dr. Crago be Manager of the *Australasian Medical Gazette* for the present year, the remuneration to be the same as in 1907. Carried.

Dr. CRAGO proposed—That Dr. Palmer be authorised to countersign all cheques as Hon. Sec. Carried.

Dr. HINDER gave notice that he would move at the next meeting of the Council—That no member of the New South Wales Branch of the British Medical Association shall apply for appointment as medical officer to any hospital or any lodge unless applications for such positions are formally invited from the hospital or lodge.

Victoria.

A SPECIAL meeting of the Branch was held in the hall of the Medical Society of Victoria on Saturday evening, May 2nd. The President (Mr. G. A. Syme) occupied the chair, and there were about 85 members present. Their Excellencies the State Governor and Lady Talbot were also present.

The PRESIDENT, in opening the meeting, explained that this meeting had been called to enable their Excellencies to be present at the adjourned discussion on Dr. Cherry's paper on "The Milk Supply of Melbourne," read at the last meeting of the Branch.

Lady Talbot, who had taken a great interest in the question of a pure milk supply, especially from the point of view of infantile mortality, had called a small meeting of experts to discuss the question. These medical men, in conjunction with the Council of the Branch, had drawn up a series of resolutions which would be submitted to the meeting.

It has been suggested—

(a) "That milk shall be obtained from an approved dairy or dairies specially inspected by the Agricultural Department, and shall be rapidly conveyed to the Bacteriological Laboratory of the University."

(b) "That subject to the approval of the University Council, the milk be there pasteurised or refrigerated, or otherwise treated by approved methods."

(c) "That the milk so treated be distributed in sterilised bottles to the Women's Hospital, the Children's Hospital, to the various Crèches, and if there be a surplus to such approved people as may desire to have it."

(d) "That the treatment of the milk be under the general supervision of a small committee of medical men, including Dr. Bull, the Director of the Laboratory."

Dr. A. J. WOOD moved—"That in the opinion of this meeting the delivery of milk in Melbourne and suburbs on Wednesday and Sunday afternoons should be re-established, steps being taken to ensure the provision of equivalent holidays at some other time for the employees in the trade." He said that it might be news to some that it was not illegal to deliver milk on Wednesday and Sunday afternoons provided that employees were given a half-holiday on some other day in the week. The Act of 1896 which had prohibited such a delivery had been repealed, but had created a custom which it was hard to break. At present the custom was that milk arriving in the city on Wednesday was stored in a refrigerating house until the following Sunday morning and then delivered, and milk arriving on Sunday was stored until the following Wednesday morning. This was not as it should be. Then the railway facilities for the carriage of milk required improvement. Milk was left in the cans as a rule at the end of the platform exposed to the sun until the train arrived, and in most cases was then bundled into the guard's van, which was by no means an ideal place for it. More louvred cars were needed, as well as some protection at the railway stations. All milk should be cooled at once after milking and kept at a low temperature until consumed. He could not say that the infantile mortality was very high in Melbourne as compared with other cities, but a great deal of it was preventable by a pure milk supply with the provision of refrigeration and possibly pasteurisation during the summer months.

The motion was seconded by Dr. F. Hobill Cole and carried unanimously.

Dr. J. W. BARRETT moved—"That this meeting approves of the establishment of a small milk supply for educational purposes." He pointed out that a great deal was being done by the Agricultural Department under the directorship of Dr. Cherry to improve our milk supply by adequate inspection, etc., but the infantile mortality should be less, and something more than inspection was necessary. Prompt refrigeration was necessary, and every well-appointed dairy should have the necessary plant for carrying this out. He thought that if a small model milk supply was instituted from which perhaps the Children's Hospital, Women's Hospital and the various Crèches might be supplied, should prove of immense educational value to dairymen, the public and to medical men. Dr. Cherry had promised if such a scheme were established to appoint special inspectors to supervise the milk and its carriage until it reached the central dépôt.

Dr. J. W. DUNBAR HOOPER, in seconding the motion, referred to his report on Infantile Mortality submitted to the Commonwealth Government, at whose request he had attended the International Congress of the

Society for the Protection of Child Life at Brussels, in September, 1907. He described in detail the methods of the Laiterie Maternelle of Brussels, and cited statistics of the Battersea (London) Milk Dépôt.

Dr. S. S. ARDYLE said that he spoke both as a medical man and as the official head of the largest milk supply organisation in Victoria. He was in hearty accord with the motion, though he could not approve of the suggestions brought forward by Dr. Barrett. He trusted that any committee appointed would be given a free hand.

After further discussion the motion was carried unanimously.

Dr. W. A. WOOD moved—"That a small committee be appointed to work out the details of a scheme, to consider the best means of carrying into effect, and report to the Branch at the earliest possible date."

Professor ALLEN seconded the motion, and hoped that His Excellency and Lady Talbot would keep in touch with the deliberations of the committee. He pointed out that the Branch could not undertake any financial responsibility in the matter.

The resolution was carried unanimously, the following being appointed members of the committee:—Drs. Norris, Cherry, Jamieson, W. R. Boyd, R. J. Bull, S. S. Argyle, F. H. Cole, Dunbar Hooper, A. J. Wood, and W. A. Wood.

The PRESIDENT (Mr. Syme) moved—"That the best thanks of the medical profession be tendered to His Excellency the State Governor and Lady Talbot for the interest they have displayed in this important question, and for their initiation of the present movement." He said that this was not the first time that Sir Reginald and Lady Talbot had rendered invaluable assistance to the aims of the medical profession as well as to other movements for the betterment of the people of this State.

The motion was seconded by Dr. R. R. Stawell (vice-president), and carried with acclamation.

HIS EXCELLENCY, in acknowledging the vote, said that though he was a mere amateur in the matter of milk supply he realised the immense difficulties to be overcome. There were many and varied outside influences to be overcome, and the committee appointed that evening had a task of great magnitude before them. He realised that the financial question was not among the least of their difficulties. In this direction he hoped that he and Lady Talbot could be of more assistance than in giving their advice. Their sympathy was heartily with the movement, and he was sure that some small scheme with an educational intention was a wise beginning, which would in time appeal to the public.

After the departure of their Excellencies the Branch proceeded to appoint a representative to attend the annual meeting of representatives at Sheffield in July next. On the motion of Drs. Wilkinson and Barrett, Dr. C. G. Mathieson was unanimously elected.

The PRESIDENT announced that nominations for member of the General Council would be received by the Hon. Secretary until noon on May 16th next.

The meeting then terminated.

Queensland.

A MEETING of the Queensland Branch was held on Friday, April 3rd, at the Technical College, Brisbane, Dr. L. Gibson (President) in the chair, and an attendance of 14 members.

Dr. J. CAMERON exhibited a boy with tumour of neck which was subject to fluctuations in size. Enlargement was accompanied by a rise in temperature.

Dr. LOVE exhibited a girl from Croydon, who was suffering from a large congenital cystic hygroma of neck. There was no enlargement of glands anywhere. He proposed tapping the tumour and using pressure.

The PRESIDENT exhibited a radiograph taken by Dr. Love, which showed aneurism of the third part of the aorta very distinctly, and was illustrative of the remarks made by him at the last meeting of the Branch. The aneurism had been beautifully seen on the screen, and expansive pulsation was very evident.

It was resolved that an expression of sympathy should be sent to Dr. Ham in connection with his illness.

Dr. JACKSON read a paper upon "Rough Notes of the Treatment of Asthma."

Dr. ROBERTSON remarked that climate had much to do with the treatment of asthma. He regarded the seaside as bad, the sea as good, Killarney and similar districts bad, Warwick not much good, the western towns very good. He said it was remarkable how small a change of position sometimes produced improvement, or otherwise, in cases of asthma. He placed more reliance on iodide of potassium and grindelia than on any other drugs. He thought that asthmatics were nearly always overclothed, they being under the impression that cold was provocative of an attack. The correction of a displacement of septum frequently produced great improvement; and the adoption of Hare's diet was of great value, especially in the case of stout people. Asthma was also due sometimes to nervous dilatation of the stomach, and was cured by cauterisation of the nose. He referred to the experiments upon cats of Brodie and Dixon in support of the idea of the presence of a nasal reflex. Dr. Robertson spoke of the good effect of adrenalin in attacks of asthma, and urged the importance of nasal neurosis as a cause of the disease.

Dr. HALFORD corroborated Dr. Jackson's experience as to the value of the open-air treatment in wasting diseases.

Dr. LOVE remarked that iodide of potassium, though of great value, did not cure asthma. He had seen a number of cases where great benefit had been obtained by sleeping out of doors. In some cases of paroxysmal asthma remarkable relief was obtained by a drop of nitro-glycerine on the tongue.

Dr. J. CAMERON said that the question of clothing with reference to working people was one of great difficulty; that it was impossible to persuade the Ipswich railway workshop men, for instance, to wear any other kind of shirt than the thick blue flannel ones adopted by them.

The PRESIDENT stated that the great object in all cases of asthma was to supply more air, and that all operative treatment for the cure of the disease should be directed to the free admission of air to the chest. He did not think that nasal neurosis was ever the cause of asthma; he had never seen a case of asthma with a normal nose. Obstructions in the nose acted in two ways: by their direct obstruction to the passage of air and by keeping up hyperæsthetic rhinitis and consequent swelling of all erectile tissue in the nose on the least provocation; for instance, the provocation of vitiated air. Iodide of potassium in 20 gr. doses, in some cases repeated every three hours, was the only drug he had found of real value. He had much hope for the open-air treatment of asthma, and congratulated Dr. Jackson.

bane; Dr. Lockhart Gibson, president, in the chair, and a fair attendance of members.

Dr. JACKSON read, for Dr. Stewart, of Dalby, a paper upon the treatment of asthma. Drs. Woolrabe, Salter, Wilton Love, and the President spoke upon the subject of the paper.

Dr. HALFORD read a paper upon the treatment of burns.

Dr. WILTON LOVE remarked that there were three special points to be considered in connection with burns:—(1) Shock, which was responsible for a very large proportion of deaths, especially in children. (2) The question of pain, which must be alleviated. An anæsthetic should be administered for the first dressing, and the clothing which was firmly adherent should not be removed until the second dressing, when it would be much more easily removed. (3) The question of healing. The great object was to exclude the air from the exposed nerve terminations, as by the use of picric acid in superficial burns. He had found orthoform and aristol very useful when the skin was broken. There was a marked change in the character of the blood, the red cells being increased very considerably, blood platelets being numerous and leucocytosis marked.

Dr. SALTER narrated a case which had been under his care. Zinc ointment had been applied and not removed for nearly three weeks, when the burn was healed. He had found resinol ointment to be a good application for indolent sores instead of the more usually used antiseptic lotions.

Dr. JACKSON said that healing produced coagulation, and that the first effort of nature in the process of healing was to get rid of the part destroyed. As soon as the blisters rose pain disappeared, and he thought that these should be left as a protection to the under surface. If discharge became offensive he used antiseptics; if not, zinc ointment on strips of gutta-percha arranged as a trellis work over burn with absorbent wool. It was a good practice to immerse the patient or that portion of him which was burnt in a bath for several hours if discharge were very offensive. He did not regard picric acid of any value in treatment of burns, and looked upon orthoform as an irritant.

Dr. D. CAMERON laid emphasis on the importance of not adopting one method for all cases. He thought it was inadvisable to administer an anæsthetic and to apply antiseptics through fear of shock. The chief object of treatment should be to exclude air, and as for lotions he found plain sterilised water to be as good as anything else in many cases.

The PRESIDENT referred to the treatment of immersing the patient in a water bath and keeping him there for several days. A rectified spirit was a very good dressing though painful.

Dr. KERR SCOTT spoke in favour of a saturated solution of picric acid as good for superficial burns of the second degree.

Dr. SPARK said that he had found 5 per cent. solution of picric acid in spirit more useful than the saturated watery solution.

Dr. CLOWES spoke in favour of a dressing of carron oil in point of view of the general practitioner, as with him the chief object was to avoid pain.

Dr. HALFORD replied.

West Australia.

THE ordinary monthly meeting was held at the Public Hospital, Perth, on Wednesday, April 15th, 1908. Present: Dr. Seed, President, in the chair; and 16 members.

A MEETING of the Queensland Branch was held on Friday, May 1st, 1908, at the Technical College, Bris-

The minutes of the previous meeting were read and confirmed.

On the motion of Drs. Martin and Hecker, Dr. Walter Alfred Saunders Bridgeford, of Boulder, was unanimously elected a member.

Correspondence.—From the A.M.P. Society in reply to the Branch's previous letter and thanking the Branch. From the Medical Secretary, London, re representation of the Branch in the representative meeting 1908-1909. It was decided to ask Dr. Trethowan to act if possible. From Dr. Beveridge, of Kalgoorlie, about a suggestion to form a W.A. Eastern Goldfields Sub-branch of the Association. The meeting was willing to help the goldfields' members, but thought it better to wait before taking any definite action till hearing from the General Secretary, who has been written to on the subject.

Dr. J. H. CUMPTON then read a paper on "The Epidemic History of Diphtheria in Western Australia."

Dr. THORP asked whether the later sharp rise in pregnancy described in the paper had any connection with the use of antitoxin, and Dr. Cumpston showed that the curve did not show any alteration coincident with the commencement of the use of antitoxin.

Dr. OFFICER asked for information as to carriers of infection without any definite sign of diphtheria.

Dr. TYMMS spoke of the importance of such a paper as this to general practitioners, who do not have an opportunity of tabulating statistics on the subject. It was, he thought, gratifying to know that the present rise in prevalence of the disease was due to natural increase in people of a susceptible age.

Dr. SEED was surprised at the pessimistic tone of the paper. Arguing from the decrease of typhoid with improved sanitation on the goldfields, he felt that with improved methods of dealing with diphtheria it would diminish rather than increase with the natural increase of subjects of a susceptible age.

Dr. RANDELL gave instances of typhoid epidemics bearing out Dr. Seed's remarks.

Dr. CUMPTON replied. He pointed out that he could scarcely be called pessimistic in calling attention to the marked increase of diphtheria throughout the country wherever children of susceptible age were increasing in numbers.

Dr. THORP reported what the committee on this question had done till now. He pointed out that only four out of seventeen doctors at these hospitals had replied to letters addressed to them seeking information upon the subject.

Further discussion took place on Dr. Couch's motion in favour of a W.A. Medical Sickness Society. On being put to the vote the decision of the branch was that the time was not ripe for the formation of such a society.

South Australia.

THE ordinary monthly meeting was held on the evening of April 30th, 1908, at the University. Dr. J. H. Evans presided over an attendance of 33 members, and several visitors were present.

The minutes of last meeting were taken as read and signed.

Exhibits:

Dr. J. C. VERCO showed a male suffering from myasthenia gravis.

Dr. T. K. Hamilton exhibited:—1. Blindness from sympathetic disease for 13 years. Perfect restoration of vision at age of 50. C.W., aged 50. Thirteen years ago sympathetic disease commenced from the right eye, which was injured when 4 years old. The injured shrunken globe was then removed, but too late to prevent the disease in the other. The condition of the

left eye on November 3rd, 1906, was as follows:—Pupil slightly displaced upwards and occluded with a dense membrane to which its margins were adherent; tension + ?; vision h.m. Critchett's operation was twice performed; an artificial pupil made downwards and inwards, and an opening made in the thickened membrane. After several months' treatment the vision has been perfectly restored so that he can now work and read the smallest print. The point of interest is that a man at 50 years of age should recover perfect vision in such an eye after having been blind for 13 years. 2. Empyema of the right frontal sinus with fistulous opening: Killian's operation. M.G., aged 64. Four months ago an abscess formed under the orbital arch, about its centre, was opened and a fistula has been discharging since. A probe could be passed 3 c.m. into the opening in the direction of the frontal sinus, and examination of the nostril revealed the presence of pus in the middle meatus. Killian's operation was performed and the sinus obliterated. There are two points of interest in the case: First, the size and shape of the sinus. Its horizontal diameter was 4.25 c.m., its vertical 2 c.m., and the cavity extended across the middle line by 1.25 c.m. The outer part of the sinus was narrowed down to a small diverticulum-like cavity about 1 c.m. long by 0.50 c.m. high, into the distal end of which the fistula under the orbit opened. 2nd. The position and determining cause of the external opening. It would seem probable that occlusion of this small cavity may have occurred and that the pus found an exit under the orbital arch below as being the direction of least resistance. 3. Rodent ulcer near the outer canthus and the effect of X-rays thereon. S.C., aged 62. A rodent ulcer of some standing had been treated with the X-rays by Dr. Newland for a long period, and it had all healed except one spot about 0.75 x 0.50 c.m. which the rays seemed powerless to cure. Dr. Newland kindly sent him to me to have this remains of the growth removed, which was done, and a flap from the arm transplanted to the raw surface. This flap promptly died, as did also another pedunculated flap taken from the healthy skin of the temple. The ulceration spread, crept into the orbit despite all efforts to check its progress, and, when the eyeball was threatened, exenteration of the orbit was performed. This procedure was followed by profuse and recurrent hæmorrhage which, although from a surface in which bleeding should be easily controlled by pressure, was most persistent. The experience gained by the case is interesting as bearing upon the influence of the prolonged use of the X-rays upon the tissues affected. The ineffectual attempts to get the skin grafts to take on growth and the hæmorrhage following the removal of the orbital contents would seem to suggest that prolonged use of the X-rays has a devitalising effect upon the skin, etc., so much so that not even a pedunculated flap could get sufficient nourishment to keep it alive, nor did the blood vessels seem to have elasticity enough left in them to contract on their contents when they were cut across. 4. Primary melano-sarcoma of the eyelid. B.M., female, aged 52, noticed a swelling of the upper right eyelid some eight months ago. This has been gradually increasing. The only injury discoverable was a slight blow on the eye some time previous to the onset of the swelling. On evertting the upper lid $\frac{2}{3}$ of the tarsal cartilage was found covered by a black firmly-adherent mass which had its posterior limitation at the retro-tarsal border, but an apparently secondary deposit could be felt higher up in the transitional fold slightly distending but not adherent to the skin of the lid. There was superficial pigmentation of the globe all around the inner $\frac{2}{3}$ of the cornea, but no thickening. The whole of the orbital contents were removed and the

skin well above the supra-orbital arch. Examination of the growth showed that it was composed of round cells and very little stroma. Primary sarcoma of the eyelid may be counted among the uncommon affections of the eye since, according to Alling (New Haven), up to the present only about 65 cases have been recorded. The pigmented variety of sarcoma seems to preponderate, and some are spindle, some round, and some mixed-celled.

Pathological specimens:

Dr. J. C. VERCO showed two very large "Polycystic Kidneys" from a man, J.D.H., aged 45, who was admitted into the Adelaide Hospital on March 19th, 1908. He gave the following history:—He was a farm labourer, born in South Australia, and had never been laid up, except with occasional broken bones. He felt quite well until January, 1908, when his stomach was upset, due, he thought, to drinking bad water; he had nausea but no vomiting. Since then he had been feeling weak, more noticeable when he tries to walk quickly, and this makes him dizzy. He has lost all relish for alcohol and tobacco. Two weeks before admission he began to pass blood in his urine, and this continued till March 28th, a period altogether of three and a half weeks. Before January he did not rise at night to pass water, but since then he has had to rise about twice each night. He has not noticed any increase in the quantity of his urine, but only an increased frequency of micturition without any dysuria. Had been a moderately free drinker and smoker. On admission he was well nourished, with a pallid sallow complexion (he was a dark complexioned man), mucosæ pale and conjunctivæ pearly. Skin dry, and very itchy. Pulse 60, regular, of good volume, arteries thickened, tension about normal. Heart's apex beat barely palpable in the fourth space an inch and a-half inside the nipple line. A somewhat musical systolic murmur at the apex. Lungs normal. In the left posterior lumbar region can be felt the kidney on inspiration two inches below the last rib, and also in front, and to the inside of this a lump, fairly well defined below but indefinite elsewhere (this was really the lower edge of the kidney). On the right side of the enlarged kidney could be felt at the lower part, and in the upper part a resisting rather indefinite mass up to the costal margin. (His abdominal walls were fat, and the examination of his kidneys rather difficult.) His urine was 1020, acid turbid, very dark red with abundant blood, much albumen; under the microscope red corpuscles, and a few casts. After the hæmaturia ceased it was clear, 1010, considerable amount of albumen, no pus, hooklets or casts. There was no albumen uric retinitis. On April 8th he began to complain of pain at the root of the tongue on the left side, with tenderness on the inside of the jaw. He developed erysipelas of the face and neck, which extended to the other side, and he died two weeks afterwards. An X-ray skiagraph was taken, and negatived renal calculus. At the post-mortem his kidneys were found very large and polycystic, the right slightly the larger, almost completely transformed into cysts ranging up to the size of walnuts. No cystic disease of liver or spleen. The case is of interest as one of complete cystic degeneration, without noticeable symptoms until within three months of death, and with only a single profuse and prolonged hæmaturia, and with albuminuria when the urine was clear..

Dr. CUDMORE demonstrated a brain with cyst in mid lobe of cerebellum.

Dr. POULTON showed a specimen with multiple hydatids in brain and heart. He also exhibited a man, aged 25, suffering from streptotrichosis of the anterior

chest wall. There were numerous ulcerated surfaces and several superficial sinuses from which pus containing masses of mycelium could be gathered. The infection of the chest wall had followed exploration of the lung by a fine trochar. The tissues were tightly bound down and immovable. Staphylococci were present in the scanty sputum, but no tubercle bacillus or streptotrichin filaments. The case had been found months under treatment, and the local visible lesions were decreasing in activity. The patient was being treated with large doses of iodide of potash, and the frequent, almost daily, application of solid nitrate of silver locally.

Dr. A. A. Lendon, who is about to visit Europe, was elected representative of the Branch at the meeting of representatives.

Papers on "Brain Surgery" were then read by Drs. J. C. Verco, Marten, Cudmore, and Gilbert.

REPORTS OF OTHER SOCIETIES.

Western Suburbs Medical Association.

THE eighteenth annual meeting of the Association was held on April 15th at "Carleton," Summer Hill, Sydney, at 8.30 p.m. Dr. Allan, president, was in the chair, and there was an attendance of 23 members. There were also present as visitors Dr. Palmer (Metropolitan Medical Association), Dr. Carruthers (Balmain Medical Association), and Dr. Savage (Eastern Suburbs Medical Association).

Drs. Riley, Wherrett and Harrison were elected as members.

The reports of the Hon. Secretary and Hon. Treasurer were read, and showed the Association to be in a satisfactory condition with a membership roll of 34, and a credit balance in the bank of £6 8s 11d.

Dr. ALLAN, retiring president, then delivered an address dealing with various matters of interest to the profession in the district.

The result of the election of office-bearers for the ensuing year was as follows:—President, Dr. Ashton Shorter; Vice-presidents, Dr. Lipscomb and Dr. Frizelle; Hon. Secretary, Dr. Barling; Assistant Hon. Secretary, Dr. Abbott; Hon. Treasurer, Dr. Stephen. Council: Drs. Hinder, Lawes, Cosh, and Allan. Hon. Auditors, Drs. Pockley and Thomas.

Dr. ALLAN then introduced the new president, Dr. Ashton Shorter, who took the chair and returned thanks for his election.

The meeting then resolved itself into a smoke concert, an excellent programme of vocal and instrumental items being submitted by professional artists.

University of Sydney Medical Society.

THE twenty-third annual meeting of the Society was held on Tuesday, April 14th. The annual report and balance-sheet showed the Society to be in a very sound condition. The librarian's report showed that the library is now flourishing. It contains over 300 volumes, many of these being donations from the honorary staff of the Royal Prince Alfred Hospital, and also is in receipt of the *British Medical Journal* and *Australasian Medical Gazette*. The library is now a very valuable asset of the Society.

After the adoption of the reports the election of office-bearers for 1908 resulted as follows:—President, Dr. A. J. Aspinall; vice-presidents, Dr. Brearley, Dr. Colvin, Dr. Furber, Dr. K. St. V. Welch, Mr. K. Smith, and Mr. R. S. Candlish; hon. secretaries, Dr. St. J.

W. Dansey and Mr. G. M. Barron; hon. treasurer, Mr. W. F. Matthews; hon. librarian, Mr. A. Mobbs; editorial committee, Dr. A. MacInnes, Dr. Stokes, Dr. Weedon, Mr. H. Johnston, and Mr. Marsh; hon. auditors, Dr. Archdall and Mr. Ferguson.

The retiring President, Dr. Poate, who is now in England, left a paper on "Australian Snakes and Snake-bite," which was read by Dr. Vickers. The paper dealt specifically with all the Australian snakes, and the dealing with the treatment of their bites was particularly interesting. A vote of thanks to Dr. Poate and also to Dr. Vickers for reading the paper was carried by acclamation.

The first ordinary meeting of the Society was held on Friday, April 24th. At this meeting Dr. Reuter Roth read a very interesting paper on the "Treatment of Emergencies." He dealt with the use of the triangular bandage, the various methods for carrying on artificial respiration, the improvising of stretchers and splints, and gave an excellent demonstration of putting up a fracture femur, using a broom as a long Liston. A vote of thanks was carried by acclamation, and in returning thanks Dr. Roth made a very eloquent and enthusiastic appeal for the formation of a Medical Corps by the undergraduates in medicine. The meeting, which was very largely attended, seemed entirely with Dr. Roth, and the Society has asked him to formulate some scheme to be presented to a meeting of the Society.

This year the Society has instituted a series of clinical evenings on the lines of those recently instituted by the British Medical Association. The dates of these evenings and also the ordinary meeting of the Society will shortly be issued in syllabus form and forwarded to all members of the Society.

Medical Section of the Royal Society of Tasmania.

THE annual report for the year 1907 of the Medical Section was submitted at the recent annual meeting of the Royal Society of Tasmania by Dr. Ireland. It stated that the section has now a membership of 18 medical practitioners, two of whom reside in the country. Seven meetings were held during the year, the annual meeting in April, and six monthly meetings, all of which were well attended. Dr. Crouch was elected chairman for the second year in succession. Drs. Sprett and Clarke vice-presidents, Dr. Clarke hon-treasurer, and Drs. Giblin and Macgowan members of committee, Dr. Webster hon. librarian, Dr. Ireland hon. secretary. At the monthly meetings papers were contributed by Drs. Crouch, Wolfhagen, Lines, Clarke, Anderson, and Elkington, and cases were shown by Drs. Owen, Butler, Roberts, and Ireland, and interesting discussions followed. Dr. Elkington, a member of the Medical Section, also contributed a paper to the Royal Society. The Section received a yearly grant from the Society of £12 towards the purchase of books and periodicals for the library. Last year the following journals were subscribed to:—*The Lancet*, *Medical Review*, *Practitioner*, *Royal Sydenham Society*, *Bulletin of the John Hopkins Hospital*, and the journal of the American Medical Society of Chicago, whilst the *Intercolonial Medical Journal*, the *Australian Medical Gazette*, and the *British Medical Journal* were supplied respectively by Drs. Macgowan, Scott, and A. H. Clarke. Dr. Elkington, on being applied to, supplied the Society with all the publications emanating from the Health Department of Tasmania to the present date, and procured a copy of vital statistics issued by the Government

The library now contains several hundred volumes, many of which are recent issues. Last year several additions were made by purchase, and some valuable works were presented by members of the section, viz., "Operations on the Abdominal Organs," from Dr. Wolfhagen; "Medical Annual" for the past four years, from Dr. Crouch; "St. Bartholomew's Hospital Reports," from Dr. A. H. Clarke; "Medical Jurisprudence and Toxicology," from Dr. Ireland. The committee also have to acknowledge the gift of Howard Kelly's "Operative Gynecology" (in two volumes), from Dr. Armstrong, who is not a member of the section.

AUSTRALIAN UNIVERSITIES.

Sydney.—At the monthly meeting of the Senate held on May 4th, the Chancellor (Sir Normand MacLaurin) presided. The following degrees were conferred *in absentia*:—Master of Arts, George Frederick Sharp, B.A., Henry Tasman Lovell, B.A.; Bachelor of Arts, Alec. Douglas McGill, Edith Croft. The Chancellor reported the receipt of a large portion of the library, 225 volumes, principally musical works, of the late Miss E. M. W. Woolley, from Mr. E. du Faur, the executor of the estate, and also a gift of books from Mr. E. du Faur. The Senate directed that a letter of special thanks be forwarded. The board for conducting the public examination reported that Professor Wood had been elected chairman of the board for the year, and that Professors Butler and MacCallum had been appointed an executive committee to act with the chairman.—The annual re-union of the Undergraduates' Association was held in the Great Hall of the University on May 2nd, between three and four hundred, including members of the teaching staff, being present. After the usual loyal toast and one or two musical items, Mr. J. Russell French proposed "The University." He regretted that he was not a University man, but he sympathised with University ideals. Since the founding of the University 50 years ago, 10,000 students had graduated at it, and there were those within its walls who were capable of turning out men fit for any sphere of the community. They should be proud of their teaching staff, and also of the fact that many of their own graduates were members of it. There were some who said that the University lagged behind the times; he personally was a conservative. University life was calculated to produce a fine body of men; the spirit of union engendered both in the classroom and the sports ground was of inestimable value. There were graduates now working amongst them who showed by their ability and capacity the value of the University. In replying to the toast, Dr. Cullen, K.C., thanked the proposer, on behalf of the University. It was worthy of them, although they did not always receive such encouragement. Founded in the early days by far-seeing statesmen, it had grown with the people of New South Wales, and it offered an opportunity to rich and poor alike all over the State. "The Teaching Staff" was proposed by Mr. G. Howatson, the president of the Undergraduates' Association. This was one of those rare occasions, he said, on which they all met together and the staff could not turn them out. On the part of the undergraduates, he welcomed them to the re-union. Professor Wilson replied on behalf of the teaching staff. Other toasts were "The Graduates" and "The Freshmen." The most popular item on the programme was a series of amusing imitations of members of the staff, including one of a professor now absent, in analysis of what appeared to be a fossil brickbat.

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Rupture of an Early Tubal Gestation causing Death within a few hours.

Fairbairn (*Jour. of Obst. and Gyn. of Brit. Emp.*, Dec., 1907). The clinical history of this case is fully recorded. The patient, aged 36, married 6 years, had had a miscarriage at the third month, in December, 1906. The periods had always been regular, and it was unusual for her to be a day out of her reckoning. At the time of her fatal illness she was only one day over her time, but she was sure she was three weeks pregnant, because she had felt for three weeks exactly as she had when previously pregnant. On the day of the fatal attack she had an ordinary meat luncheon, and at four o'clock had gone upstairs, when she experienced some gastric discomfort and pain, lay down for a time, and shortly afterwards vomited some partially digested food. About half an hour later she had diarrhoea and fainted. She was then (about 6 p.m.) carried to bed and seen by a retired medical man, who was in the house at the time. He found her pale and cold, and complaining of gastric pain, and, as this, coupled with the vomiting and diarrhoea, pointed to some gastro-intestinal irritation, her condition was naturally ascribed to something eaten at luncheon. She was treated by the administration of hot brandy and water, and by the application of hot flannels to the abdomen and hot bottles to the feet. The first really ominous signs appeared only within an hour of death. She suddenly became colder at the extremities and the pulse at the wrist almost disappeared. It now became evident that serious internal hæmorrhage was taking place, and further medical advice was summoned. Meantime, an ounce of brandy was given in teaspoonfuls, with temporary improvement in the pulse. The patient was extremely pale and conscious, but required rousing to answer questions, and became restless and dyspnoic. Hot injections of beef-tea into the rectum were tried, but she rapidly became collapsed, and died soon after ten p.m., about six hours after the first symptoms, and a few minutes before the further expected medical assistance arrived. There was no hæmorrhage from the vagina. At the autopsy, the abdominal cavity was found full of blood, mainly in the lower part and in the pelvis. The source of the hæmorrhage was found to be the ruptured left Fallopian tube. The rent, which was rather less than an inch in length, involved the upper and posterior aspect of the tube, about midway between the uterine and free ends. Here the tube had been distended by the growing ovum, its walls were much thinned, and its inner surface showed some rough tags where the ovum had been attached. The ovum itself was not found, being probably lost in the blood which inundated the abdomen and pelvis. In commenting on this case, the author points out that all cases of rapidly fatal result from a ruptured ectopic gestation are of interest, for they are not of common occurrence. This case is of especial interest in that the gestation was a very early one—the patient being only a day over her time, and she herself only estimated her pregnancy as of three weeks duration—and that the symptoms, which only appeared some six hours before death, were at first very misleading, and indeed only within an hour of the end, pointed definitely to internal hæmorrhage. Beginning with epigastric pain, vomiting and diarrhoea, there was at first nothing to lead to a diagnosis of more than gastro-intestinal irritation with

faintness, till the persistent pallor and coldness of the extremities, and the progressive feebleness of the pulse, made it evident that a more serious cause existed. Even the diagnosis of tubal rupture was difficult, as the history of preceding "indigestion," and the site of the pain with other gastro-intestinal symptoms, pointed rather to the hæmorrhage being gastric or duodenal. Probably at first there was only a slight leakage, causing the pain, sickness and faintness, and only when the patient had begun to rally from the shock of this did the really serious hæmorrhage commence. Faced by a tragedy of this kind, it is unfortunate when the early signs are indefinite and the opportunity for immediate operation lost. The history exemplifies the difficulties in private practice of treating successfully these cases of cataclysmic intraperitoneal flooding, unless the signs are manifest early in the attack. The time allowed for making a diagnosis, obtaining help, and making preparations for a major operation is so short that it is doubtful whether in a case like this life could have been saved. The author further points out that cases of this kind, though rare, occasionally occur, as instanced by two cases known to him personally. In both cases, after what was thought to be an ordinary miscarriage, the patient left home to recruit, and died a few hours after the onset of collapse. In one case, the collapse occurred on the night of the patient's arrival in a country town, and death took place shortly after the surgeon arrived in readiness to operate; in the other the collapse occurred in a London hotel, where the patient was staying on her way to the country, and death followed within two hours. In both these cases the cause of death was verified by autopsy. In the early weeks an intact tubal gestation gives no warning of its presence, and it is not easy to see how a diagnosis can be made before bleeding into the ovum or leakage into the peritoneal cavity (either from the fimbriated end or from a small rupture) gives definite symptoms and signs of intraperitoneal mischief. When an extensive and sudden rupture with intraperitoneal flooding occurs without previous leakage, there are no premonitory physical signs, and the symptoms are so trifling that there is really no warning till the collapse and shock indicate a serious internal hæmorrhage. Further, on the examination of the rupture afterwards, it is not easy to understand what determines the amount of hæmorrhage, and why in certain rare cases a rapidly fatal bleeding occurs. Anatomically, there is little to explain the differences in the result, so that it may be that the time at which faintness occurs may favour thrombosis in the bleeding vessels or that the blocking of the rupture by the ovum may act as a check. In the case recorded, where the ovum escaped through the rent, any plugging action which it might have exercised would be lost. Finally, the author points out that it is only by the publication of accurate and detailed records of the clinical history of these cases and their careful analysis that we can learn enough to enable us to warn a patient of the danger of her condition, and be prepared to meet it as soon as a positive diagnosis can be made.

A Case of Intra-ligamentary Bladder.

Fothergill (*Jour. of Obst. and Gyn. of Brit. Emp.*, Dec., 1907.) Malformations of the urinary bladder are uncommon; but when encountered during operations on the pelvic organs, they may be the cause of technical difficulties or of serious accidents. In the rare congenital anomaly called "intra-ligamentary bladder," the bladder lies more or less between the anterior and posterior layers of the broad ligament. The utero-vesical pouch is absent, so that the bladder is not separated from the uterus by the usual fold of

peritoneum. On one or both sides of the uterus the bladder spreads laterally into the broad ligament. The condition was first described by Ziegenspeck in 1887. In 1901, Tandler and Halban published in their atlas, "Topography of the Female Ureter," a case similar to that of Ziegenspeck. In 1905, Natanson and Zinner described four further cases. The last named observers drew the following conclusions:—1. The intra-ligamentary bladder is a congenital anomaly. 2. It may be either unilateral or bilateral. 3. If unilateral, the uterus is pushed over to the opposite side, and the relations of the tube, ovary, and round ligament are altered. 4. A fluctuating tumour in Douglas's pouch or the parametrium may be an intra-ligamentary bladder. 5. In this condition the relations of the ureters are altered, generally being much further removed laterally from the vagina than is usually the case. 6. The peritoneum in such cases reaches very deeply into the pelvis in front of the bladder, so that a supra-pubic operation cannot be performed without opening the peritoneum. Up to the present time the author believes that all the published cases were discovered either on the operation table or post-mortem. In the case presented the symptoms and physical signs suggested the presence of this anomaly, and the suspicion was so strong that it was put to the test by direct inspection through an abdominal incision. The belief being thus verified, an attempt was made to remedy the anomaly, with a considerable measure of success. Miss M., aged 28, for a long time had been under medical treatment, complaining of frequency of micturition accompanied by pronounced neurasthenia. There was no trouble with the bladder until the onset of menstrual life, but from that time onwards there had been increasing frequency of micturition. For the previous five years the bladder required evacuation so frequently as to interfere with her occupations and pleasures, until gradually it had worn out her nervous system and reduced her to a miserable condition. There was no abnormality in the urine. Examination of the bladder and urethra by the usual methods revealed no disease; and there was no evidence of the presence of any infective condition. Examination of the pelvis revealed that the uterus could not be retroverted, that it was more definitely fixed to the bladder than usual; and that the fundus, though but moderately ante-flexed, seemed to dip into the posterior wall of the bladder. Medical treatment having failed, after due consideration it was decided to make an attempt to relieve the patient. The abdomen was opened in Trendelenburg's position and fluid slowly injected into the bladder. It was then seen there was no utero-vesical pouch. The peritoneum covered merely the fundus of the uterus, and adhered to it in front down to a line joining the Fallopian tubes. Then it was reflected on to the bladder, which thus reached the upper limit of the broad ligaments in the middle line, and extended into them on each side. When about four ounces of urine had entered the bladder, it rose above the fundus uteri, which was then tilted forward into the back of the bladder. A transverse incision about three inches long was made through the peritoneum about an inch and a half in front of its reflexion from the fundus. The peritoneum was then separated from the bladder behind and in front of the incision, and the bladder was separated from the uterus down to the level of the os internum. The incision in the peritoneum was then closed from side to side so as to leave the line of union running from before backwards instead of transversely. This freed the uterus from the bladder by creating a good utero-vesical pouch lined

with peritoneum. As the fundus still pressed somewhat unduly into the back of the bladder, its anterior aspect was lightly united to the parietal peritoneum at the lower angle of the abdominal wound, with the object of preventing the uterus from pressing into the bladder. The parietal wound was then closed. A good recovery ensued, and for some time urine was voided at regular intervals, with improvement in the general health. Subsequently the bladder was sometimes a source of trouble, but the improvement in her general condition was maintained.

Thrombosis and Embolism after Gynæcological Operations.

Zurhelle (*Munch. Med. Wchnschr.*, 1907, abstr. in *Jour. of Obst. and Gyn. of Brit. Emp.*, Feb., 1908). The author points out that thrombosis and emboli come more frequently under the notice of gynæcologists than of general surgeons. They are especially frequent after operations for myomata, occurring after 2·75 of all operations of this nature in the Bonn Klinik. This is accounted for by the disturbances of the circulatory system which are common in women suffering from such tumours; as Winter observes, fatty degeneration and brown atrophy of the heart are to be dreaded whenever great loss of blood has affected the general system, especially when long persistent hæmorrhage has led to chronic anæmia. These changes in the heart are seldom seen in carcinomatous patients. At Bonn, thrombosis occurred much more commonly in patients who were well off, who were subjected to no bodily strain or exercise, and who had far less resisting power when operated on, than women of the working classes. Thrombosis in cases of malignant tumours are easily explained; on the other hand, for those after operations for uterine displacements and adnexal tumours, such causes may be assigned as wound infection, some existing cardiac anomaly, anæmia, refrigeration of the open abdominal cavity, impairment of the heart by the narcosis, obstruction to the return of blood by excessively tight bandaging, or finally the Trendelenburg position. Three varieties of thromboses may be distinguished:—1. Thrombosis of the pelvic veins which are most apt to lead to pulmonary embolism, as these veins have no valves. 2. Thrombosis of the deep veins of the thigh, usually due to purely mechanical causes in women with weak hearts, which also may lead to pulmonary embolism. 3. Thrombosis of the vena saphena which does not cause pulmonary embolism.

Ovarian Pregnancy with a living Child, and with a living Intra-uterine Child also.

Menge (*Munch. Med. Wchnschr.*, 1907, No. 49, abstr. in *Jour. of Obst. and Gyn. of Brit. Emp.*, Feb., 1908). At a meeting of the Franconian Obstetric and Gynæcological Society, Menge exhibited an extra-uterine gestation sac removed by laparotomy, which had contained an almost fully developed living child, the sac itself being formed entirely by the right ovary. The right tube, up to its abdominal end, lay quite intact on the upper surface of the sac, which was connected with the uterus by the ovarian ligament. The right ovary was indistinguishable. The left adnexa were normal. The case from which the specimen was taken was remarkable, as besides the extra-uterine fœtus there was a living, almost fully developed child in the uterus, which was born spontaneously head first before the laparotomy, without causing the rupture of the extra-uterine sac. The woman had been sent to the klinik by a medical man as a case of labour impeded by a tumour, and had journeyed a long distance by rail.

The operative extraction of the extra-uterine child, and the removal of the ovarian gestation sac with the placenta, offered no great difficulty, although there were adhesions, and there was hardly any blood loss. The mother was suckling both children, and all three were doing well.

OPHTHALMOLOGY.

Argyrosis, and a Note on the Action of Silver Salts.

J. Burdon Cooper (*The Ophthalmoscope*, January, 1907), after referring to some of the views that have been advanced to account for the silver staining, some of which are untenable, whilst others are accepted, recapitulates as follows:—(1) The essential element in determining the stain is the soluble chlorides of the tissues. (2) It is chloride of silver that is decomposed by light, not an albuminous material. (3) The soluble chlorides influence the rate of penetration of silver nitrate. (4) The depth of penetration is a function of the concentration of the silver nitrate. (5) The seat of the stain is determined by the soluble chloride, and is also dependent on the strength of the solution. (6) The brown stain is either argentous chloride or an oxychloride of silver. (7) The black stain is either metallic silver or the black oxide, probably the former. (8) Drops are more potent in causing a stain than an application of a stronger solution by the brush. The writer goes on to give his opinion of the organic preparations of silver, and refers specially to argyrol. His conclusions appear to be based on chemistry and theory rather than on clinical experience. He believes argyrol to be "wholly inert in the conjunctival sac or nearly so." He thinks "the time has come for us to cease playing at therapeutics, and to cast out of our pharmacopoeia a lot of worthless material. Argyrol may have a mechanical effect, and its sedative action is due to the large amount of metallic silver it contains (metallic silver is sedative in its action), but when this is said I believe we have summed up argyrol. It is interesting to note the comparative rarity of staining by argyrol or any other organic silver compound." [Considering the relative infrequency of its use, it is doubtful if staining by argyrol is so comparatively rare, and that it does sometimes stain, which is generally admitted, is evidence that it does penetrate the tissues.—REVIEWER.] As protargol gives a reaction with a soluble chloride, Cooper does not include it in his condemnation.

The Rôle of the Pneumococcus in Ocular Infections.

Sydney Stephenson (*Ophthalmoscope*, March, 1908. Modern bacteriological researches have taught us that the pneumococcus plays no small part in the causation of several diseases of the eye and its appendages. For example, it has been found in inflammation of the lachrymal gland and sac, of Tenon's capsule, of the connective tissue of the orbit, of the eyelids, conjunctiva, cornea and, lastly, in metastatic forms of panophthalmitis. The presence of the pneumococcus has been demonstrated in the normal conjunctival sac, where it appears to be capable of leading a purely saprophytic existence. Gasparini met with the organism in no less than 80 per cent. of his cases; but his figures have been challenged by others, and it is probable that the pneumococcus can be found only occasionally in the healthy conjunctival sac, and then in an attenuated form. It has been proved by several experimenters that the pneumococcus is pathogenic as regards the eyes of certain animals, e.g., the rabbit. Broadly speaking, inoculation of the con-

junctival sac produced conjunctivitis; of the cornea a purulent keratitis, with or without hypopyon, and of the vitreous humour a panophthalmitis. Hanenschild, Gifford, and other devoted enthusiasts have inoculated their own conjunctivæ and that of assistants and patients, and set up conjunctivitis. Successful results also followed the inoculation of (a) an anaërobic culture of the second generation, and (b) a pure aërobic culture.

Amongst the numerous micro-organisms found in the discharge of a chronic dacryocystitis, none is of more importance than the pneumococcus, which is apt to inoculate any corneal abrasion that may chance to be present, and thereby give rise to "serpiginous ulcer" or hypopyon keratitis. Probably pneumococci are present in one half of the cases of dacryocystitis.

Ophthalmia neonatorum is caused in about two-thirds of all cases by the gonococcus; about 10 per cent. of all cases are due to the pneumococcus. In fact, next to the gonococcus, it is the commonest micro-organism associated with ophthalmia neonatorum. The pneumococcal cases are, as a rule, mild, seldom entail corneal damage, and sometimes present the peculiarity of improving more or less suddenly after lasting four or five days. In older subjects pneumococcal conjunctivitis may appear under various clinical guises. Few of the cases can be diagnosed as pneumococcal except with the aid of the microscope; but there are a few signs that when found, and more especially when grouped, enable us to diagnose the ailment with some degree of certainty. These include the co-existence of coryza, the presence of a pellicle of fibrin on the surface of the palpebral conjunctiva, or of small multiple ecchymoses into the ocular conjunctiva, and, lastly, of a fleeting rose-coloured puffiness of the free edges of the eyelids. It is generally bilateral, shows a special tendency to affect children, and when grown-up people are attacked is usually of a severe type.

With regard to corneal infections the practical importance of the pneumococcus it would be difficult to over-estimate. It is unquestionably the cause of the majority of cases of serpiginous ulcer or hypopyon keratitis, the etiological percentage being estimated by Lowe as high as 95 per cent. A breach of surface of the cornea is essential for the infection—a minute abrasion of the epithelium is sufficient. We know that pneumococci are unable to attack the intact epithelium. Once in the substantia propria, however, the organism spreads out between the lamellæ and proceeds to elaborate its toxins; and although Descemet's membrane is supposed to be germ-proof, it opposes no barrier to the diffusion of the toxins, which thus reach the aqueous tumour and the iris. As a consequence of the irritating action of the toxins, leucocytes are caused to migrate into the anterior chamber and become visible as pus. This explains the fact that the pus in the anterior chamber in cases of hypopyon keratitis is free from bacteria (except in cases where the cornea has been perforated). Typical ulcer serpens occurs only in middle-aged or elderly persons, usually of the labouring classes, who are naturally more exposed to corneal injuries than others better placed in the social scale, and who, besides, are apt to attach little importance to a discharging or watery eye. The hypopyon keratitis of children is as a rule a much milder affection, is not associated with dacryocystitis, yields to simple treatment, and seldom entails the loss of an eye. It may indeed be doubted if a typical ulcer corneal has ever been observed in a child (Axenfeld). At the same time the pneumococcus is, according to Stephenson, often present.

The last corneal condition in which pneumococci are not uncommonly present is "keratomalacia," a kind of gangrene of the cornea, apt to supervene in young children enfeebled by wasting disease, as tuberculosis, syphilis, ileocolitis, and so forth; at the same time there is no evidence that the pneumococcus is the cause of the disease, which is essentially one due to the lessened vital resistance of the body in general, and of the cornea in particular. Under these conditions almost any pyogenic microbe may suffice to set up the corneal mischief.

NEUROLOGY.

Anatomy of Epilepsy.

De Buck (*Le Névrae*, June, 1907). The interest in this paper lies in the fact that the writer reviews the present views on the above subject. This review, unfortunately, shows that so far as "true epilepsy" is concerned the most divergent views are held as to the sequence of changes found in the cortex and their significance. The one outstanding fact is that in epilepsy there is marked destruction of cortical nerve cells and an overgrowth of neuroglia. The writer's own cases showed macroscopically an occasional gross lesion such as a cyst, a definable sclerosed area, etc. He found the sclerosis most marked in the hippocampus in 15 per cent. of his cases. Microscopically, he found a chronic atrophic condition of the nerve cells preceded by chromatolysis. He saw no evidence of phagocytosis of the nerve cells by leucocytes. As regards the nerve fibres, he found them in much greater abundance in sections treated by Cajal's method than in those treated by Pal's method, showing that the myelin sheath disappears before the axon. The changes in the neuroglia did not especially affect the outer layer of the cortex, as has been asserted. All the changes were more marked according as the case was one suffering from a large number of fits or not. Changes in the vessels are not marked; small hæmorrhages are seen in cases with severe fits. In older cases the vessels are dilated. De Buck says: "We are unable to affirm that there is any special histopathological picture characteristic of epilepsy." He considers epilepsy to be especially a disease of the cortex. He found only minor changes in the cerebellum, basal ganglia, medulla and cervical ganglia. He looks upon the disease as a primary degeneration of the neurone due to a toxine or toxins; the neuroglial changes are secondary.

Surgical Treatment of Cerebral Tumours.

In *Le Névrae* for June, 1907, Van Gehuchten writes on the above subject. Some of his figures are of interest. He shows how few of those operated on really recover. In the first place no operative interference is possible with tumours occupying the mesial and inferior aspects of the hemispheres, the peduncles, the pons and medulla; that is to say, only tumours of the external surface of the cerebrum and certain tumours of the cerebellum can be dealt with. He shows that only 20 per cent. of cerebral tumours are accessible. Out of more than 400 cases examined post-mortem, only 7.5 per cent. were operable. He next shows how few of these operable tumours can be exactly diagnosed. In the right hemisphere only those occurring in the anterior central convolution and the neighbouring parts of the frontal convolutions can be exactly diagnosed as regards position, and in the left hemisphere one can add the middle portion of the first two temporal convolutions. It is true, he points out, that other regions are operated on, but the cases are very few in comparison. He quotes Bergmann's figures, which show that in 114 cases of operation 75 per cent. concerned the motor

region, 9 per cent. the frontal region, 6 per cent. the other lobes, and 10 per cent. the cerebellum.

Of the 7 per cent. of the cases found post mortem to be operable, many of the tumours were situated in undiagnosable positions, so that it seems that the number of cerebral tumours operable and diagnosable is less than 7 per cent.; in fact, Knapp found it was less than 4 per cent., and Seydel only 2.3 per cent. Further, of the operable and diagnosable, many die from the operation, or their "recovery" leaves them paralysed, blind, or even epileptic. From these figures one must certainly concede that the statistical outlook for the man with cerebral tumour is by no means a comforting one.

The Auditory Centre in the Human Brain.

The *Centralbl. f. Nervenheilk. u. Psych.*, December, 1907, gives an account of a paper read by Flechsig on the above subject. Flechsig is inclined to narrow the limits of what he once regarded as the auditory centre. His embryological investigations have led him to regard the anterior transverse gyrus lying in the bottom of the fissure of Sylvius, just behind the insula (i.e., Heschel's gyrus), as the auditory centre. In the human newborn the first medullated fibres of the temporo-sphenoidal lobe appear in this convolution, and can be traced in serial sections to the internal geniculate body. Their character as part of the auditory path is thus demonstrated. He finds that degenerations after damage to the lobe take the same course—a fact which is somewhat peculiar, for one would have expected the neuronic bodies of these fibres to have been situated in the internal geniculate body. It is a question, however, whether this is the only auditory centre. Clinically, in isolated damage to the left posterior gyrus of Heschel one observes word-deafness, but with double-sided damage to this gyrus one gets complete deafness.

The radiation from the internal capsule to this gyrus is twice as abundant on the left side as on the right. These convolutions have a special cortical structure.

In the discussion which followed it was pointed out that one must make a clear distinction between the actual auditory centre and the parts which might possibly act vicariously as auditory centre were the latter damaged. For instance, Rothmann asserted that to obtain true deafness in dogs one must remove the whole of both temporal lobes; that even a small portion not removed might lead to the restitution of hearing. Nissl asserted, however, that the case of man was not a parallel, since in man deafness due to double-sided lesion of the temporal lobes was never recovered from.

Cerebral Puncture.

Neisser (*Centralbl. f. Nervenheilk. u. Psych.*, December, 1907) read a paper before the Medical Congress at Dresden on a method of puncturing the brain for diagnostic purposes. He uses local anæsthesia—ethyl chloride—and bores through the intact walls of the skull by means of an electrically driven motor and a needle 1 mm. in diameter. It was found to be of great value in the diagnosis of such cases as intra- and extra-medullary hæmatomata, cysts, abscesses, tumours, etc., and proved of therapeutic value at times. A number of others have also used the method. For example, Pfeiffer made 89 punctures in 20 cases for the purpose of settling the exact site and structure of cerebral tumours. The information he obtained led to five of the cases being cured by operation, and in the other cases more exact knowledge was obtained than by other means. Lichtheim twice punctured a cyst of the cerebellum. A number of others have evidently used the method with success.

MEDICAL MISCELLANY.

The students of the University of Pennsylvania Medical School have formed an organisation, the purpose of which is to acquaint the undergraduates with the workings of the American Medical Association, after which it is very closely modelled. The various students' societies take the place of the State organisations and elect members to a House of Delegates, which transacts all the business of the Association. An annual meeting is held at which papers are read by chosen members, thus encouraging original research and a scientific spirit. The organisation is named "The Undergraduate Medical Association of the University of Pennsylvania," and already has over 250 members.

An innovation in the placing of a woman at the head of a large general hospital has been made at the New York Post-Graduate Hospital, where Mrs. Annie M. Rykert, for several years matron of the hospital, has just been appointed superintendent.

Some 225 boys at the Newsboys' Home, in New Chambers-street, New York, had an unexpected Christmas treat, when at two o'clock on the morning of December 24th a physician of the Health Department roused them from their slumbers, and with the assistance of a policeman to prevent any from escaping, proceeded to vaccinate the entire number. This early morning visit, he explained, was timed so as to catch as many newsboys on the premises as possible.

The *Medical Record* reports that the efforts of the Indian Government to stamp out the plague have been enormously hampered by the refusal of the Mahomedans to evacuate infected villages on the ground that the Koran forbade them "to flee from the wrath of God." Fully 250,000 deaths from the plague among Moslems are estimated to have been caused by adherence to this belief. Now the heads of the Moslem faith, urged thereto by the Government, have proclaimed the untenability of this idea, and have declared that the Koran expressly enjoins the faithful to quit places smitten by Allah with this disease. The Government is scattering the proclamation broadcast.

Dr. Merling, of Berkenfeld, Germany, was attending a child in a neighbouring village who required tracheotomy. At the moment when he had completed the incision he sank dead on the floor, seized with cardiac paralysis, while the child bled to death.

The oldest member of the profession in Berlin, Dr. F. Körte, celebrated on January 16th his ninetieth birthday, and received numerous congratulations, both on his own achievements and good health and on the achievements of his sons, who have all taken high rank in scientific circles, including W. Körte, the prominent surgeon.

In the presence of M. Briaud, the Minister of Public Instruction, and a brilliant assembly of savants, Dr. Jean Charcot, son of the famous J. M. Charcot, handed over to the Salpêtrière Hospital the entire library of his father, together with all the furniture of his library as he used it in his lifetime.

The Guide to Health—*Gesundheitslehrer*—is to be henceforth the official organ of the German Anti-quackery Society, in place of the *Hygienische Platter*, which will no longer be published. The *Gesundheits-*

lehrer was founded by Dr. H. Kantor, of Warndorf, Bohemia, and is written in popular style.

The *Semana Med.*, December 5th, 1907, gives the full text of the law recently enacted to control the spread of malaria. It has nineteen paragraphs, and appropriates \$15,000 as an annual provision for the defence against malaria. The country is to be divided into zones where malaria is endemic, periodical or accidental, and efforts are to be made to prevent its importation into the present free zones.

At the last meeting of the New York Board of Health two sections of the sanitary code were amended. First, the section which provided that no unwholesome food should be brought into, stored, or offered for sale in the city, was amended by adding that "any foods offered for sale anywhere in the city by dealers in food shall be deemed as offered or held for sale as food." Second, the section which required all physicians and midwives to report all births at which they assisted is changed to read, "They shall file with the Board of Health reports of all births at which they assist within ten days of the same." This amendment was necessary because many physicians and midwives when called to account for unreported births asserted that they had mailed their reports, which must have gone astray. Now it will be necessary for all birth reports to be filed in person.

According to the statistics prepared by the health officer of Montreal, Dr. Joseph E. Laberge, the birth rate of Montreal for 1907 was about 44·20 per 1000 of population. The average birth rate of that city for a period of 19 years is put down at 37·92 per 1000. That was for all nationalities, but the French-Canadians can be accredited with about 40 per 1000. The birth rate of Montreal is higher than that of Toronto by 13·21 per 1000. Comparison with other cities show an excess as follows:—Breslau, 5·61; Prague, 13·18; Munich, 5·5; Vienna, 6·5; Milan, 10·0; Rome, 12·5; St. Petersburg, 6·5; London, 8·7; Paris, 16·4; New York, 10·0; and Philadelphia, 13·0.

An important caution to medical practitioners is given by Dr. David Sommerville in the *British Medical Journal*, February 1st, 1908, page 300, in regard to the substitution of cresylic acid for the preparation known as Cyllin. He writes: "In the article on Cresylic Acid the British Pharmaceutical Codex states at p. 15 that cresylic acid enters into the composition of a number of proprietary disinfectants, such as Cyllin, Creolin, Lysol, etc., and that a typical preparation of this class is Liquor Cresolis Compositus, whose composition is described on page 613 as consisting of cresylic acid by weight 50, linseed oil 35, caustic potash 8, alcohol 4, distilled water to 100. From work I have done on the chemical and germicidal properties of cyllin and several other proprietary disinfectants during the last five years I have no hesitation in saying that this statement is at once misleading and dangerous. Cyllin as prepared for medical practitioners and pharmacists contains no cresylic acid. As concerns disinfection in medical or surgical practice, the above substitute cannot be used without liability to disastrous results. The Rideal-Walker co-efficient of Cyllin Medical is 20·0; the Rideal-Walker co-efficient of the above substitution product is 2·5."

Owing to the long illness of Nurse Mabel Anderson, "Karoola" Private Hospital, Darling Point, Sydney, is closed from May 1st.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Decline in the Birth Rate—The Lord Rector of St. Andrew's University—The Health of the Navy—Society for the Extermination of Vermin—Doctors in Japan—The Whisky Question—Munificent Offer for a Mental Hospital.

DR. DUDFIELD, medical officer of health for Paddington, read a paper on January 21st before a meeting of the Royal Statistical Society on "Some Unconsidered Factors affecting the Birth Rate." The lecture was of considerable practical interest, and was listened to with close attention by a large audience. Dr. Dudfield stated that his aim was to estimate potential fertilities as affected by alterations in the age of the married population of this country, and also to consider to what extent there was a decrease in the number of legitimate births as a consequence of the practice of "moral restraint." He pointed out that fecundity was measured by the number of confinements, fertility by the absolute number of children. The upper limit of the fecundity of women had been raised from 45—the figure generally adopted—to 54 years. On investigation it was found that the proportion of fecund women to population had undergone but slight change during the half century, increasing in England and Scotland and decreasing in Ireland, the total change amounting only to plus 5 per cent. in England and plus 4 per cent. in Scotland, and minus 7 per cent. in Ireland. For London the proportion had remained approximately unchanged. By comparing the actual births with the estimate of births from standard fertilities, it was found that in England and Wales the growth in the number of legitimate births had not kept up with the growth of the population to the extent of 28 per cent. There had also been a lagging behind the increase in the number of fecund women to the extent of 37 per cent. Estimated from the standard fertility rate the increase in the number of births should have been 88 per cent., as compared with increase of 81 per cent. for the total population, and 90 per cent. for fecund married women. In London the increase in the registered number of births was 27 per cent. below the increase of the population, and 25 per cent. less than that of fecund married women. For Scotland the relative decrease was 18 per cent. and 21 per cent. respectively. In Ireland, while the population had shrunk since 1871 by 18 per cent., the number of births registered had fallen by 33 per cent., the decrease in the number of fecund women had been 7 per cent. less than that of the births, and the decrease in the estimated number of births amounted to 29 per cent., or 4 per cent. less than the decrease in the registered number. Accordingly, the numerical loss in births owing to "moral restraint" was estimated for 1901 as follows:—For England and Wales, 209,295; for Scotland, 18,345; for Ireland, 5870. "Moral restraint," the lecturer said, "was to a considerable extent the outcome of Malthus's doctrine that population increased faster than the means of sustenance. A recent report of the Board of Agriculture showed that for the principal wheat-consuming countries, between 1881 and 1906, the inhabitants increased by 33 per cent. and the area under wheat by 42 per cent." Hence, Dr. Dudfield inferred that the chief argument of Malthus lacked solid foundation. Other causes for "moral restraint," however, would probably remain permanently effective.

Lord Avebury was installed on January 16th as Lord Rector of St. Andrew's University. The ceremony was

presided over by Principal Sir James Donaldson, the Vice-Chancellor, and after his investiture Lord Avebury delivered to the students the usual rectorial address. In the course of his remarks his lordship said that he spoke as one who had lived a long time, and as one who had some suggestions to make to those now entering on the world and embarking on the glorious career of life. The weariness and sadness of life came not in the nature of things from outside, but from ourselves. The wild storms of the human heart, sufferings and sorrow, we must indeed all expect; but it was our own fault if we had not a heavy balance of happiness. At the conclusion of the Lord Rector's address the degree of Doctor of Laws was conferred on Dr. Francis Darwin, President-elect of the British Association; Dr. Donald Macalister, Principal of the University of Glasgow; Mr. Philip Norman, F.S.A.; Sir Edward John Poynter, President of the Royal Academy; Mr. Charles Hercules Read, Keeper of British and Mediæval Antiquities and Ethnography in the British Museum; and Lord Avebury.

The statistical report on the health of the Navy, which was issued early in January, contains much interesting information. The following figures, quoted from the *Morning Post*, bear eloquent testimony to a progressive improvement of health in the *personnel* of all branches of the service as compared with previous years. Not only are the case, invaliding and death ratios for the year under review lower than the average ratios for the previous nine years, but average loss of service for each person has dropped from 12.79 to 10.60 days, and the year's ratios are, under each heading, the lowest recorded since 1856. The total force in the year 1906 was 108,190, and the total number of cases of disease and injury entered on the sick list was 77,842, which is in the ratio of 719.49 per 1000, being a decrease of 119.3 per 1000, as compared with the average ratio of the previous nine years. The number of entries per man for disease and injuries was—On the home station, '69; Channel, '59; Atlantic, '76; Mediterranean, '87; North America and West Indies with Particular Service squadron, '91; China, '95; East Indies, 1'05; Australia, '86; Cape of Good Hope, '74; and the irregular list, '92. In the total force the average is .71, a fractional decrease in comparison with 1905. The average number of men sick daily was 3144.77, giving a ratio of 29.06 per 1000, and showing a decrease of 6.00 in comparison with the previous nine years' average. The total number of days' sickness on board and in hospital was 1,147,843, which represents an average loss of service of 10.6 days for each person, which is a decrease of 2.19 in comparison with the average for the last nine years. The ratio per 1000 of men sick daily on the various stations was—On the home station, 32.09; Channel, 21.51; Atlantic, 23.92; Mediterranean, 24.68; North America and West Indies with Particular Service squadron, 31.04; China, 34.83; East Indies, 29.22; Australia, 28.16; Cape of Good Hope, 24.46; and irregular list, 55.19. The Channel fleet shows the lowest sick rate, and the irregular list the highest. The total number of persons invalided was 2436, which is in the ratio of 22.51 per 1000, and shows a decrease of 5.73 per 1000 in comparison with the average of the last nine years. Including marines invalided from headquarters, the total number invalided out of the service was 1901. Of the 2436 invalided, 2268, giving a ratio of 20.96 per 1000, were invalided for disease, and 168, giving a ratio of 1.55, for injury. In comparison with 1905, the home station, Atlantic, North America, China, and the irregular list show increased invaliding ratios; while

Channel, Mediterranean, East Indies, Australia, and Cape of Good Hope show decreases. The total number of deaths was 399, giving a ratio of 3·68 per 10000, which shows a decrease of 1·46 per 1000, in comparison with the average ratio for the last nine years. Of this number 269, a ratio of 2·48 per 1000, were from disease, and 130, a ratio of 1·2 per 1000, from injury. Compared with the death ratios for 1905, Atlantic, North America, Australia, and Cape of Good Hope show an increase, the remaining stations a decreased ratio.

At a meeting held at the Hotel Metropole, and presided over by Sir James Crichton-Browne, on January 10th, a society was formed for the purpose of starting an international campaign against vermin, and particularly against rats. In the course of an opening speech, Sir James Crichton-Browne said that the human aversion to the rat was fully justified, because it was the most destructive of all animals. Nothing came amiss to its chiselling teeth and insatiable maw. It made depredations on fields of corn and pulse, it scoured granaries and ship cargoes, it devoured eggs and killed poultry and game, it made unwelcome visits to dairies, butchers' shops, and bakeries, it gnawed through lead pipes causing household floods, and it was even suspected of arson by nibbling the insulating material on crossing electric wires and so short-circuiting them. Worse than all this, the rat disseminated disease. The discovery of the connection of the rat with disease was first made by Zuschlag, a Danish engineer, whose studies in economic zoology led him to conclude that trichinosis was produced by a parasite. The rat was the original host of the parasite, and it was by consuming rats thus infected that pigs contracted the disease and passed it on to human beings. But there was a far worse indictment against the rat, namely, that it was mainly instrumental in the propagation of plague, one of the most sudden, dreadful, and inevitably fatal of human maladies, a malady of which we did not now stand in any immediate dread in this country, but which had played havoc in India. Plague had invaded this country with dire effect. In India the ravages of the disease had been appalling. Since 1896 it had caused five and a quarter million deaths. Rats were highly susceptible to plague and were the main fountain of the poison which was carried to the human being by the rat's flea. If plague was to be stamped out the rat must be stamped out; there should be a wholesale destruction of the animal. Though the fecundity of the rat was remarkable—one pair would produce 800 descendants in the course of a year—he believed that its destruction in limited areas was not impracticable. Some pecuniary value might be placed on a rat. In Japan before the war rats were a pest, and a small price was offered for their skins. It was clear that an attempt should be made in England, to exterminate the rat. He would not enter on the plan of campaign. That would be decided by the executive committee. Trap, gun, dog, and cat would all have a place in the strategy; the fumigation of ships was an important matter; even phosphorus, arsenic, and the old poisons were not to be despised. Science had come to their aid by producing a virus. The preparation made by Dr. Danyasz gave rats a disease which killed them in from eight to fourteen days. Rats communicated this disease to other rats and thus an epidemic was set up in the locality. As a precautionary measure against plague, from which this country was not absolutely free, and for various other reasons, it was clearly the duty of everybody to enter upon a crusade against the rat. Sir Lauder Brunton moved—
“That in the opinion of this meeting it is desirable that

a national society be formed for the destruction of vermin.” Dr. Sandwith seconded. Commissioner Nicol, of the Salvation Army, offered the services of the officers of the organisation in India and Japan and other Oriental countries to facilitate the objects of the society, and spoke of the great value of the cat in the extermination of the rat. Sir Lauder Brunton was appointed president of the society; Sir J. Crichton-Browne, Sir Patrick Manson, Surgeon-General A. F. Bradshaw, and Professor Simpson, vice-presidents; Lord Avebury, treasurer; Sir Rupert Boyce, Sir Harry Stapley, Dr. Charles Martin, Dr. C. W. Saleeby, Dr. Murdoch, Commissioner Nicol, Dr. Godson, Dr. Sandwith, Mr. Edward Brown (National Poultry Organisation Society), and Mr. W. Aveling, members of the committee; and Mr. A. E. Moore, secretary.

According to the *Independence Belge*, the overcrowding of the medical profession in almost every European country finds its counterpart in Japan. From recent statistics it would seem that at the end of 1906 there were in that country 34,611 doctors and 706 qualified dentists. The increase among the doctors during a year was 740. Taken as a whole, there appears to be one doctor for every 1348 persons, but in the great towns and cities the proportion is still greater. In Tokio, for instance, there is one doctor for every 840 persons, and there are, in addition, 33 foreign practitioners. Japan possesses 786 hospitals, of which 630 are private institutions. Besides these, there are foreign institutions under the control of foreign doctors.

A Royal Commission has been appointed to make enquiry into the materials, processes of manufacture, and other important points concerned with the preparation and distribution of whisky. The Commission consists of Lord James of Hereford (chairman); Mr. Laurence N. Guillemard, deputy chairman of the Board of Inland Revenue; Mr. Walter Adeney, D.Sc., F.C.S., of the Royal University of Ireland; Mr. J. Rose Bradford, M.D., D.Sc., F.R.S.; Mr. Horace T. Brown, LL.D., F.R.S.; Mr. George S. Buchanan, M.D., medical inspector and inspector of foods to the Local Government Board; Mr. John Y. Buchanan, F.R.S.; and Mr. Arthur R. Cushny, M.D., F.R.S. The terms of reference are:—1. Whether, in the general interest of the consumer or in the interest of the public health or otherwise, it is desirable (a) to place restrictions upon the materials or the processes which may be used in the manufacture or preparation in the United Kingdom of Scotch whisky, Irish whisky, or any spirit to which the term whisky may be applied as a trade description; (b) to require declarations to be made as to the materials, processes of manufacture, or preparation or age of any such spirit; (c) to require a minimum period during which any such spirit should be matured in bond; and (d) to extend any requirements of the kind mentioned in the two subdivisions immediately preceding to any such spirit imported into the United Kingdom. 2. By what means, if it be found desirable, that any such restrictions, declarations, or period should be prescribed, a uniform practice in this respect may be satisfactorily secured. And to make the like inquiry and report as regards other kinds of potable spirits which are manufactured in or imported into the United Kingdom. In view of the large consumption of spirits throughout all parts of the world, and of the important part which alcohol plays in the etiology and treatment of disease, medical men will receive with approval the announcement that such a strong Commission has been convened to deal with this important question.

At a meeting of the London County Council held on

February 18th, a letter was read from Dr. Frederick Maudsley, of 12 Queen-street, Mayfair, in which he offered £30,000 towards the establishment of a hospital for mental diseases. The letter was addressed to Mr. H. P. Harris, the chairman of the Council, and in it Dr. Maudsley said that in December last Mr. Harris had kindly allowed him to put before him a scheme for the establishment in London of a fully equipped hospital for mental diseases. He stated then that should the L.C.C. be willing to carry it into effect he would be pleased to contribute £30,000 towards the cost of it. In the hope that the Council would look favourably on the scheme, he now ventured to ask its acceptance of that sum for the purpose. "As a physician who has been engaged in the study and treatment of mental diseases for more than half a century," says Dr. Maudsley, "I have been deeply impressed with the necessity of a hospital, the main objects of which would be (1) the early treatment of cases of acute mental disorder with a view, so far as possible, to prevent the necessity of sending them to the Council's asylums; (2) to promote exact and scientific research into the causes and pathology of insanity, so that such knowledge might be used for its prevention and successful treatment; and (3) to serve as an educational institution in which medical students might obtain good clinical instruction." On the motion of Mr. Stuart Sankey, a letter of thanks was addressed to Dr. Maudsley, and his generous offer was referred to the Asylums Committee.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

A Flaw in the Medical Act—Davis Treatment of Cancer.

A SERIOUS flaw has been discovered in the section of the Medical Act which provides for the admission by the Medical Board of one graduate yearly from certain American homœopathic colleges. The Act begins by affirming the two principles of the five years' course before qualification and of reciprocal recognition. When the bill was being considered, however, the authorities of the Homœopathic Hospital in Melbourne represented to members of Parliament that if these were carried they would be unable to get resident medical officers for their institution. To meet this supposed difficulty it was agreed that one graduate of either the Boston Homœopathic Medical College or of the New York Homœopathic Medical College should be admitted yearly. These colleges are registered as "four-year" schools. To carry out the five year principle the Act further provides that the homœopathic graduate thus admitted shall serve for twelve months as resident medical officer of the Homœopathic Hospital. Should he not do so his registration shall be cancelled. In 1907 a graduate (M.D.) of the Boston Homœopathic Medical College and Hospital was under the above section of the Act registered by the Medical Board of Victoria. This student could not possibly have gone through anything like a four years' course. In 1905 he attended certain single subjects in the medical course at the Melbourne University in a desultory manner, and again in the first half of 1906 he attended certain other lectures. He was not a matriculated student and at no time passed any examinations. In August, 1906, he left Victoria for America. In July, 1907—an interval of 11 months, including travelling—he returned to Victoria with the qualification (*sic*) of M.D., Boston, and immediately applied for registration. This the Medical Board, under section 7 of the Medical Act, 1906, had no option but to grant. Even counting his 18 months' desultory work at the Melbourne Uni-

versity, this student gained his M.D. Boston with not more than two and a-half years' work. Inquiry by the Faculty of Medicine to the Boston Homœopathic College elicited the following facts—that the student in question passed his two examinations "with distinction," gaining 95 per cent. in clinical medicine, and an average of 80 per cent. in all subjects. These facts speak for themselves and constitute a strong case in favour of an early revision of the Act. They have been brought under the notice of the Chief Secretary in the first place by letters from the Medical Board and from the University Council. Further, a deputation, consisting of the members of the Council of the Victorian Branch of the British Medical Association, members of the Council of the Medical Defence Association, the members of the Medical Board, and the members of Committee of the Melbourne Medical Association, waited upon the Chief Secretary (Sir Alexander Peacock) and placed the views of the profession before him. Professor Allen emphasised the necessity of enforcing the main principles of the Act, *viz.*, the five years' course and the reciprocal recognition. He pointed out that in England the Homœopathic institutions were granted no concessions whatever, and that it would be quite possible for the Melbourne Homœopathic Hospital to get medical officers from England, or that they could be trained in Melbourne. The Chief Secretary promised to look into the matter most carefully after hearing also what the authorities of the Homœopathic Hospital had to say.

The Board appointed some time ago by the Premier (Mr. Bent) to investigate the Davis system of treating cancer has prepared an interim report. As was to be expected, the report utterly condemns and discounts the Davis treatment. The results of the inquiry may be gauged from the following sentences culled from the report:—"The substance used by Mr. Davis as an application is of the nature of a caustic." "There is no evidence that the substance has any selective action." "Mr. Davis has produced no evidence to show that, as claimed, the substance is in any way unique or different from the old and almost entirely discarded caustic agents." "None of the cases diagnosed as cancer by the medical members of the board before treatment by Mr. Davis has up to the present been successfully treated." "In one case he informed the board that the cancer (of the breast) had been removed, and the patient was 'only weak,' when it was evident that the breast was still cancerous, that the lungs were extensively invaded. . . . This patient died within a fortnight of her examination by the board." The report is signed by all the members of the board, but one of them, Dr. Duncan Turner, has added a series of comments in which he speaks of the report as being "as a whole one-sided, and most unfair to Mr. Davis." If so, why did he sign the report? Surely the other members of the board, consisting as it does of three well-known politicians, as well as such trusted members of our profession as Drs. Norris, Cherry, Hamilton Russell, and C. H. Mollison, may be relied upon to be conscientious in their duty to the people of this State, whose Government appointed them to act. Dr. Turner's many comments are full of points which must be thrashed out before the final report of the board is submitted.

South Australia.

The Stretton Case—Public Health Appointment—Public Abattoirs.

THE "Stretton case," as it is called, has recently aroused a good deal of public interest, and the circumstances have been adversely commented on by one of

the leading press organs. A patient of the above name swallowed a vulcanite plate with three teeth attached. He immediately consulted a medical practitioner, who sent him to the Adelaide Hospital, where a skiagraph was taken of his neck and upper chest. As the X-rays gave no evidence of the plate being in his gullet the patient was informed that it had passed into his stomach, and he was sent to the out-patient department. As the symptoms of dysphagia still continued, he consulted another practitioner, who again applied the X-rays, and localised the missing plate in the upper part of the gullet. As it seemed to be firmly fixed there, oesophagotomy was performed and the plate removed. The patient succumbed a few days later from secondary hæmorrhage. A certificate of death was given. The Chief Secretary, however, becoming cognisant of the case, referred it to Dr. Rogers, the acting coroner, for a report. No inquest was considered necessary. The Hospital Board also held an enquiry, the result of which was that the hospital staff was held free from blame. As a result of the public outcry, an honorary skiagrapher has been appointed, and a new X-ray outfit has been ordered from London. Hitherto the Röntgen ray work has been done in a very cursory way at the hospital, and the recent innovations will be much appreciated.

With the passing of the Federal Quarantine Bill it is believed that Dr. Ramsay Smith, who holds the dual office of Coroner and President of the Board of Health, will be translated to Melbourne to occupy the chief administrative post created under the Act. This will give the State Ministry an opportunity of bringing public health administration and control into line with the methods in vogue in the other States. As a first step the coronial and public health duties should be performed by two different persons. Many years ago, on the score of economy, the coronership was united with the chief public health appointment, and this anomalous state of things has continued to the present. The importance of conserving and improving the public health, however, has during recent years been so widely recognised, and the administrative work has so greatly increased, that it is highly desirable that the head of the Public Health Department should devote the whole of his time to the duties of his position. It is easy to understand, too, that while a man might be an exceedingly good health officer he might make an extremely bad coroner. Each position demands special training, and it is to be much desired that the State Ministry will recognise this, create two separate posts, and appoint the most competent men available.

For the last seven years efforts have been made to obtain public abattoirs, and with them a pure meat supply. None of the schemes proposed has met with the unanimous approval of the butchering trade, and consequently the matter is still the subject of controversy. The opportunity is ripe for the Ministry to seize. There is little doubt that the state of some of the slaughter-houses in Adelaide and suburbs is a menace to the public health, and calls for reform. A rubbish destructor is urgently needed. A good deal of the rubbish is at present deposited in certain parts of the park lands around Adelaide. This is highly undesirable. Directly however, a site is selected for the rubbish destructor there is an outcry from those who live in the locality, and the matter is shelved. Recently the City Council has considered the question of purchasing Burford's large soap factory, which is situated almost in the heart of the city. The stench from this factory is almost unbearable at times. It is suggested that the Council should abolish the manufacture of soap and institute the destruction of rubbish. Doubtless a question of "out of the frying-pan into the fire."

THE CHARTER AND THE COUNCIL.

(The Editor Australasian Medical Gazette.)

Sir,—At the February meeting of the Auckland division of the British Medical Association, a resolution was carried unanimously to the effect that in drafting the composition of the Council of the Association under the proposed new charter, sufficient representation was not given to the dominions beyond the sea, the Crown colonies, protectorates, countries of occupation, and other parts of the British Empire. Twenty-one representatives are allotted to the motherland, but only seven for her numerous progeny. This viewed on a population basis was equivalent to giving twenty-one representatives to the British medical men practising among a population of 40,000,000, whilst only seven are allotted to 360,000,000, no less than 20,000,000 of whom are white. It is probable, also, that the population of the self-governing colonies at least, in spite of a decreasing birth-rate, will increase even more rapidly than in the past decade owing to the increased and cheapened facilities for travel, the dissemination of literature, and the modern method so well illustrated by Canada of advertising the resources of their country encouraging emigration. The fact that medical men other than those eligible for membership of the British Medical Association, practice to so large an extent in the outlying parts of the Empire, as well as that there is not yet complete reciprocity of registration, is largely due to a want of organisation on the part of the British Medical Association in the past, no doubt accounted for by the apathy to some extent on this subject of most of its members in these places. How difficult it is to even attempt to organise medical men into an association, I know from my own experience in Egypt. Although Sir Horace Pinching, the late Director-General of the Egyptian Public Health Service, gave me every assistance, even to circularising most of the British medical men in Cairo, the majority seemed indifferent; whilst in Natal, and also now again on returning to New Zealand, I find that the generality of the profession takes little interest in the Association except to subscribe to the journal. The reason for this may be that up to quite recently the Association seems to have been content to amble along very much like the old man with his daily cry: "Any rags, any bones, any bottles to-day, the same old story in the same old way." One cannot help feeling that the time is passing when an attempt might be successfully made to consolidate the whole Association into a body of such magnitude and power as to make membership thereof more worthy of attainment than at present. With perhaps the exception of the country in which I am at present working there is hardly one of the many parliaments and legislative assemblies in the Empire which does not contain past or present members of the Association. There ought, therefore, with their assistance to be little difficulty in getting the different self-governing parts of the Empire to reciprocate in registration. Some have already done so. My friend, Dr. Alfred Thompson, M.P., for Dawson City, Yukon, promised me to bring this subject forward from time to time at Ottawa. It has always seemed absurd to me that an accredited graduate of a University like McGill should have to take an L.S.A. or other diploma in England to become registrable, whilst an M.D., London, to practice legally in Canada must also go through a form of examination for registration there. This is only one of the many questions which could be satisfactorily solved by representatives knowing the different parts of the Empire. There are always colonial medical men in London either

permanently resident in practice, or others doing post-graduate work, or returning to settle there, who would represent their countries with credit. It might be possible also for some representative of considerable standing of the parent Association to be induced to visit the chief centres of the colonies and organise the men. This is a subject perhaps of as much vital importance to our Association as the endless discussion of the Ebwe Vale dispute, which seems to have absorbed so much of the time of the local representatives; at least that was the impression I gathered when attending the meeting of secretaries after the dinner at the Carlton Hotel in July, 1906. It would be interesting to read some expressions of opinion on the points raised as to representation and organisation of the Association in countries other than the trio composing the British Isles. It is also worth noting that there is no representative on the Medical Council of the men practising outside Great Britain. This Council might easily extend its functions to the whole Empire, as far as they affect men on the British register.—I am, etc.,

J. S. PURDY, M.D., C.M. (Aberd.)

Government Health Department,
Auckland, N.Z.

THE DIAGNOSIS OF TUBERCULOSIS.

(The Editor Australasian Medical Gazette.)

Sir,—In an interesting leader in your March issue, you draw attention to the "ophthalmo-reaction à la tubercule" of Calmette. If I be allowed, I would like to remark in this connection:—1. The better name for the test is *conjunctival tuberculin reaction*. 2. Calmette's work in this connection was only a modification of v. Pirquet's *per cutaneous* modification of Koch's original *subcutaneous* tuberculin test. Calmette used Koch's old tuberculin, and though he removed the glycerine from it, such removal has since been shown to be unnecessary. 3. In the selection of the conjunctiva as the site for the application of tuberculin, Calmette had been anticipated by Wolff Eisner. 4. The conjunctival test, though extremely useful, especially in febrile cases, is not nearly so reliable as the subcutaneous.—I am, etc.,

F. G. GRIFFITHS.

175 Macquarie St., Sydney.

MOSQUITO DISTRIBUTION IN QUEENSLAND.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I feel much regret that I had not seen Dr. Bancroft's work on mosquito distribution prior to reading the notes before the Brisbane Branch that were published by you on March 20th, for on March 23rd a most valuable paper was published as No. 8 of the Annals of the Queensland Museum, being a List of the Mosquitoes of Queensland, by Thos. L. Bancroft, Brisbane.

I had commented on the absence of any systematic record of mosquito distribution in Queensland, and I was particularly thinking of North Queensland. It is a pity that Dr. Bancroft has not been able to apply his great energy and knowledge of mosquito work to North Queensland and repeat the valuable notes he has made of the coastal distribution in the south.

With the near establishment of the Tropical Institute, this will, I hope, be an early matter to engage attention.—I am, etc.,

R. A. O'BRIEN.

Melbourne Hospital, April 24th, 1908.

Medical Registration in N.S.W.

A DEPUTATION, representing the medical profession of New South Wales, waited upon the Chief Secretary, Mr. Wood, on April 13th, to urge upon the Government the necessity of certain amendments in the present Act regulating the registration of medical practitioners. Dr. Arthur, in introducing the deputation, which included Sir Phillip Sydney Jones, Sir Normand MacLaurin, Dr. Mackellar, Dr. Todd, and several leading medical men, said that there were omissions and defects in the present Act. These were not of a contentious nature, and he trusted that in the next session the Government would rectify the anomalies. The amendments they asked for were in operation in most Australian States, and it was fair to desire that New South Wales would come into line with them.

Dr. Todd, the honorary secretary of the N.S.W. Branch of the British Medical Association, detailed the various amendments that the profession asked in the Medical Practitioners Act. The present Act was a measure which consolidated very old Acts, dating from 1802 to 1855. New South Wales was the pioneer State, for in 1839 provision had been made for the registration of medical practitioners. The deputation asked that the registration, which applied to coroners only, should be made applicable to general purposes. Medical men educated in the United Kingdom should only be registered here if they were eligible for registration at home. The law should provide for the complete education of medical men before registration. Reciprocal arrangements with foreign authorities should extend only to those countries which recognised New South Wales qualifications. British naval and military physicians already had the right to practise here, and it was asked that power of registration be given. It was also asked that as a certificate of good fame and character was sometimes necessary, the board be granted the right to demand same. A consequential amendment was that duly qualified medical men should be entitled to a certificate to that effect. The board asked permission to alter names, addresses and qualifications of members on the register if necessary, and that provision be made for the Registrar-General to notify annually to the board the deaths of medical practitioners. At present names were on the register of persons who had probably been dead for years. The terms "legally qualified medical practitioner" and "duly qualified medical practitioner," used in Parliament and at law, should be taken to mean medical men duly qualified and registered by the board. No certificate of death should be valid unless the signatory be a registered practitioner. An anomaly in the present law was that medical men could recover fees in the District or Small Debts Court, but not in the Supreme Court. A practitioner registered in the United Kingdom, however, could obtain redress. The deputation asked also that unregistered men should be disentitled to recover fees at law. Practitioners should be enabled to obtain additional diplomas. Nearly all the above amendments were already in law in most Australian States and in the United Kingdom.

Mr. Wood, in reply, promised to submit the matter to the Cabinet for immediate consideration. He would have to give special consideration to the question of disallowing the unregistered practitioner to recover fees at law. There were other means of dealing with the unregistered man besides taking away his common law rights. The proposed modifications would greatly improve the existing Act. The profession undoubtedly did suffer from the incursions of persons who were not all they should be.

International Congress on Tuberculosis Washington D.C.

September 21st—October 12, 1908

GR**E**A**T** efforts are being made by the National Association for the Study and Prevention of Tuberculosis of the United States to ensure success for the next International Congress on Tuberculosis, which, on invitation of the Association, will meet at Washington in September next. Seven departments of the United States Government have expressed their intention of being officially represented at it, and have petitioned the Senate for authority and the necessary funds; while the Department of External Affairs has been authorised to empower its representatives abroad to suggest to foreign powers that they should delegate representatives. The preliminary announcement concerning organisation has now reached this country, in the shape of a pamphlet of 88 pages, of which copies will be forwarded on application to the gentlemen whose names are given below, and who have been invited to represent the Organising Committee in Australia:—At Sydney, Dr. J. Ashburton Thompson; at Adelaide, Dr. H. S. Newland; and at Brisbane, Dr. A. Jefferis Turner. Application for enrolment as active members should be addressed without delay to "International Congress on Tuberculosis, Colorado Building, Washington, D.C." accompanied by orders of the value of one pound each, which should be made payable to "Henry Phipps, Treasurer." It is expected that the transactions will extend to about 4000 pages; they should form a valuable repertory of present-day knowledge, methods, and views on the prevention of tuberculosis. It is much to be hoped that Australia, where so much has been done of late years towards diminishing the prevalence of this disease, may be fully represented on this most important occasion.

The Central Committee has announced the offer of the following prizes:—

I.—A prize of \$1000 is offered for the best evidence of effective work in the prevention or relief of tuberculosis by any voluntary association since the last International Congress in 1905. In addition to the prize of \$1000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award. Evidence is to include all forms of printed matter, educational leaflets, etc.; report showing increase of membership, organisation, classes reached—such as labour unions, schools, churches, etc.; lectures given; influence in stimulating local Boards of Health, schools, dispensaries, hospitals for the care of tuberculosis; newspaper clippings of meetings held; methods of raising money; method of keeping accounts. Each competitor must present a brief or report in printed form. No formal announcement of intention to compete is required.

II.—A prize of \$1000 is offered for the best exhibit of an existing sanatorium for the treatment of curable cases of tuberculosis among the working classes. In addition to the prize of \$1000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award. The exhibit must show in detail, construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

III.—A prize of \$1000 is offered for the best exhibit of a furnished house, for a family or group of families of the working class, designed in the interest of the crusade against tuberculosis. In addition to the prize of \$1000, two gold medals and three silver medals will be awarded.

The prize and medals will be accompanied by diplomas or certificates of award. This prize is designed to stimulate efforts towards securing a maximum of sun-light, ventilation, proper heating, and general sanitary arrangement for an inexpensive home. A model of house and furnishing is required. Each competitor must present a brief with drawings, specifications, estimates, etc., with an explanation of points of special excellence. Entry may be made under competitor's own name.

IV.—A prize of \$1000 is offered for the best exhibit of a dispensary or kindred institution for the treatment of the tuberculosis poor. In addition to the prize of \$1000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award. The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

V.—A prize of \$1000 is offered for the best exhibit of a hospital for the treatment of advanced pulmonary tuberculosis. In addition to the prize of \$1000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award. The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

VI.—The Hodgkins Fund prize of \$1500 is offered by the Smithsonian Institution for the best treatise that may be submitted on "The Relation of Atmospheric Air to Tuberculosis." The detailed definition of this prize may be obtained from the Secretary-General of the International Congress or Secretary of the Smithsonian Institution, Chas. D. Walcott.

VII.—Prizes for Educational Leaflets:—

A prize of \$100 is offered for the best educational leaflet submitted in each of the seven classes defined below. In addition to the prize of \$100, a gold and two silver medals will be awarded in each class. Each prize and medal will be accompanied by a diploma or certificate of award. Competitors must be entered under assumed names.

- (a) For adults generally (not to exceed 1000 words).
- (b) For teachers (not to exceed 2000 words).
- (c) For mothers (not to exceed 1000 words).
- (d) For in-door workers (not to exceed 1000 words).
- (e) For dairy farmers (not to exceed 1000 words).
- (f) For school children in grammar school grades (not to exceed 500 words).

In classes a, b, c, d, e, and f, brevity of statement without sacrifice of clearness will be of weight in awarding. All leaflets entered must be printed in the form they are designed to take.

- (g) Pictorial booklets for school children in primary grades and for the nursery.

Class g is designed to produce an artistic picture-book for children, extolling the value of fresh air, sunlight, cleanliness, etc., and showing contrasting conditions. "Slovenly Peter" has been suggested as a possible type. Entry may be made in the form of original designs without printing.

VIII.—A gold medal and two silver medals are offered for the best exhibits sent in by any States of the United States, illustrating effective organisation for the restriction of tuberculosis. Each medal will be accompanied by a diploma or certificate of award.

IX.—A gold medal and two silver medals are offered for the best exhibits sent in by any State or country (the United States excluded), illustrating effective organisation for the restriction of tuberculosis. Each medal will be accompanied by a diploma or certificate of award.

X.—A gold medal and two silver medals are offered for each of the following exhibits; each medal will be accompanied by a diploma or certificate of award; wherever possible, each competitor is required to file a brief or printed report:—

- (a) For the best contribution to the pathological exhibit.
- (b) For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any State of the United States. Brief required.
- (c) For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any State or country (the United States excluded). Brief required.
- (d) For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any municipality in the world. Brief required.
- (e) For the society engaged in the crusade against tuberculosis, having the largest membership in relation to population. Brief required.
- (f) For the plans which have been proven best for raising money for the crusade against tuberculosis. Brief required.
- (g) For the best exhibit of a passenger railway car in the interest of the crusade against tuberculosis. Brief required.
- (h) For the best plans for employment for arrested cases of tuberculosis. Brief required.

XI.—Prizes of two gold medals and three silver medals will be awarded for the best exhibit of a workshop or factory, in the interest of the crusade against tuberculosis. These medals will be accompanied by diplomas or certificates of award. The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

Dr. Charles J. Hatfield, Philadelphia, is the chairman. Dr. Thomas G. Ashton, Philadelphia, secretary of the committee on prizes.

Australasian Medical Congress.

EIGHTH SESSION.

MELBOURNE, OCTOBER 19-24, 1908.

THE engagements of Congress week will include a Congress service at St. Paul's Cathedral on Sunday morning, October 18th (sermon by the Bishop of Tasmania); a Congress dinner in Town Hall, given by the Victorian members, Wednesday evening, October 21st; a ball given by the officers of the R.A.R.C., Thursday, October 22nd; a conversazione, given by the President on Friday evening, October 23rd, at the University; Henley-on-Yarra, with a Congress house-boat, on Saturday, October 24th; a party at State Parliament House on Monday evening, October 26th, given by the President of the Legislative Council and Lady Wrixon; a Congress cricket match, golf and garden parties by some of the leaders of Melbourne society. Rooms should be secured at an early date. Members should particularly note that sectional work is not confined to subjects chosen by the committees. The list is only intended as an incentive to certain special studies and reports.

It is particularly requested that members who contemplate reading papers or taking part in the discussions should at once communicate with the Secretaries of the Sections.

OBITUARY.

We regret to record the death of Dr. William M. Campbell, of Adelaide, S.A., which took place on April 21st from heart failure, the result of a complication of diseases. His last illness was short, for he had returned from a holiday at Victor Harbour only a fortnight previously. Dr. Campbell was highly respected for his unobtrusive kindness to rich and poor, and often sacrificed his own personal comfort and health for the benefit of others. He was particularly interested in the Children's Hospital, with which he had been connected since its foundation. Dr. Campbell resigned his position on the staff only a few weeks ago, owing to the state of his health. The deceased, who was a native of Scotland and 66 years of age, married a daughter of the late Mr. Robert Stuckey, of Palmer Place, who survives her husband. He had been a practitioner in Adelaide for the past 30 years.

Dr. H. R. Horne, of Traralgon, Victoria, met with a fatal accident on May 3rd, when out driving in his motor car. A dog ran under the car, and was struck by the connecting rod of the steering gear, which it was afterwards discovered was slightly bent. In consequence, going down hill to a bridge the steering gear became locked, and the car ran with great force against the end post of the bridge. Dr. Horne was jammed against the steering wheel. Eventually he got out, and was able to walk with difficulty to the residence of Mr. Fithie, close by. The following morning Dr. Horne was much worse, and it was surmised that his liver was ruptured. He gradually sank, and died shortly after midnight on Tuesday. When the Boer War broke out deceased joined the Cameron Scouts as private and was shot through the lungs and heart. He made a marvellous recovery, and went out to the seat of war the second time. Some time after peace was concluded he went to China, and it was while travelling with Mr. Eadie, on behalf of the China Mutual Life Assurance Society, that they were attacked by bandits in the Tungau district. The two succeeded in beating off their assailants, though seriously injured. Dr. Horne was awarded £1000 compensation by the Chinese Government, and on his recovery purchased a practice in Traralgon.

We regret to record the death of Dr. Alton Kingsley Hoets, M.R.C.S. (Eng.), L.S.A. (Lond.), which occurred at his residence, Glebe Point, Sydney, on May 7th, at the age of 52 years.

He was born in the Cape Colony, and at an early age was taken to England. He received his preliminary education at Haileybury College, and then proceeded to the London Hospital and obtained the L.S.A. (Lond.) in 1879, and the M.R.C.S. (Eng.) in 1880. He was assistant medical officer at the Plumstead Workhouse Infirmary from 1879 to 1880, and hon. surgeon at the London Hospital from 1880 to 1881. He had a short trip to the West Coast of Africa as ship's surgeon, and then came to Sydney in 1882. He first practised at Burrowa, N.S.W., in partnership with Dr. Hodson. He remained there only a year, and proceeded to Yass. He visited England again in 1891, and on his return to New South Wales he began practice at Brushgrove, on the Clarence River, but after two years there he returned to Burrowa, and continued in practice until his enforced retirement in consequence of ill health, some two and a half years ago. At that time signs of aneurism of the first part of the arch of the aorta manifested themselves, but in spite of every care and attention his health gradually failed, and for several weeks before his death he was

confined to bed. His funeral, at Waverley Cemetery, was largely attended, among those at the graveside being many of his only son's fellow students in medicine at the University of Sydney. He has left a widow and one son, now a student of medicine, and one daughter, to whom we extend our warmest sympathy. Dr. Hoets was a most active and energetic practitioner, and the necessarily enforced rest in the last years was a great trial, yet he bore his troubles with patience and equanimity. He was a great reader, and was well versed in a variety of subjects, but only those who knew him well could see under a somewhat rugged exterior a kindly and sympathetic heart.

We also regret to record the death of Dr. Harrie Cox, which occurred at Warren, N.S.W., on May 8th, from tetanus. He graduated in medicine at the University of Sydney a few years ago, and had been some time in practice in Warren. Deceased was attended by Drs. Burditt and Adams, of Dubbo. Sympathy has been expressed by all sections of the community throughout the district, as he was very popular and noted for his charitable acts. The interment took place on May 10th, the funeral being the largest ever seen in the district. Deceased was the Government Medical Officer, medical officer to the hospital and the Oddfellows' lodge, and a pastmaster of the Masonic lodge. He was given a Masonic funeral, the ceremony at the grave being impressively conducted by the Worshipful Master James Walker. The local Oddfellows took part in the procession to the grave. Deceased leaves a wife and two children.

Some Literary Notes.

It will interest many of the medical graduates of Edinburgh University to know that Professor John Chiene, C.B., has recently published a pamphlet entitled "Looking Back—1907-1860." This little book is peculiar inasmuch as there is no publisher's name, no title page, no table of contents, and no index. The Professor talks on a variety of subjects, which are treated in a simple, frank style. We are indebted to the *British Weekly* for some abstracts from the pamphlet which will interest our readers. Talking of golf, he says: "Oh! that we could learn to play for the back of the hole—it is the hardest lesson to learn." He says we must trust Duncan's law: "When you lose your ball and do not find it where you thought it was, go thirty yards back and you will find it." Referring to his past life he remarks: "I have been wonderfully preserved from fatal accidents during the 40 years in which I have been in harness as an operating surgeon. May I be preserved from any form of self-congratulation! All railway and shipping companies know that when a long time has passed without accident, then is the dangerous time. In appendicitis, the chronic variety, I have never yet had a death from the operation. I always wonder how long can it go on." "We want to avoid over-mental and over-bodily stoking. The butchers and the aperient water manufacturers, the crammers and the examiners, flourish together—they will go down together." "We want to . . . out away much that is superabundant in our curriculum in board school and universities."

The Professor's geniality extends to chronics: "The ancients among the students, these men who struggle on to obtain their degree, their efforts are worthy of all praise; they are, as a rule, likeable fellows. I have learned many things from your Principal, for which I am thankful, and one of the most useful to me has been

deference and kindness to anyone ignorant of his work' to anyone whom it would be dangerous to let loose on the public, to anyone who must still be kept on the chain. Woe to such a man who seemed to be getting on swimmingly in his anatomy oral! He was only asked some very simple questions that he might leave the room happy."

The editor of the *British Weekly* remarks, in conclusion that: "This discursive and charming booklet ought to be read, and not the least remarkable feature of it is the list of books which may have influenced the author. It is by no means a bad list, but wonderful! wonderful!"

An anonymous medical writer has just published a small volume called "Confessio Medici" (Macmillan), which is worth reading. In talking of the prospects of the young practitioner, he says: "Of course, we say, things will be slow and uphill at first, but I do not mind that; and we reckon with confidence on the usual sequence; first the lean years, then success, and at the last a comfortable and honoured old age, with a garden in a pleasant neighbourhood not too far from London. This forecast does not compel us to see as we ought, that when we take our work in hand it takes us in hand and chastises us. Nothing in practice is more certain than its use of the scourge, and we need not go outside the day's work to learn obedience. 'Talk of the patience of Job,' said a hospital nurse, 'Job was never on night duty.'" His sketch of the unsuccessful practitioner is equally vivid: "The sky keeps grey, not black, but grey; no storm clears the dull air and washes the streets of life; only the sky is grey and the view is gone. Oh! not a regular wet day, no excuse for stopping indoors or giving up any engagement; still a dull, heavy sort of day, and rather cold, considering that it ought to be summer." Ponders the retired practitioner "always managed somehow, by sleep, by force of will, by sheer grace, to repair or almost to repair, the levy of the day before. There was always something still to be taken. He went without ceasing and nobody brought him back. Yet there he was daily, much the same to the very end, when there came a touch of pneumonia, which the doctors call the old man's friend, and Death was left in possession."

Medico-Ethical and Medico-Legal.

Accoucheur writes:—A engages B for the forthcoming confinement of his wife. After labour has commenced and the nurse thinks it necessary, A rings up B on the telephone requesting him to come at once. Labour proceeds somewhat rapidly and the nurse tells A that the baby will be born very shortly. As B lives some distance away and is not likely to arrive in time, A rings up C, a practitioner in his immediate neighbourhood, who, on the situation having been explained to him, consents to come. C arrives just as the woman is delivered. About 15 minutes later B arrives on the scene, whereupon C immediately retires and hands the case over to B.—Questions: (1) Is A liable for a fee both to B and C? or if not (2) should B offer to share the fee with C? or (3) should C consider himself to have attended the case out of courtesy to B?

*** (1) No; (2) and (3) It would be etiquette for C to consider that he only attended the case out of courtesy to B, and he followed the ordinary rules of practice in handing over the case to B. We think, however, that under these circumstances B should pay a proportion of the fee to C.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of March, 1908:—Registered deaths in the metropolitan municipalities during March numbered 479. This figure does not include deaths of non-residents who died in metropolitan hospitals, but includes deaths of residents within the metropolis which took place in hospitals for the insane and all public institutions outside the metropolis, with the exception only of those who died in benevolent asylums. The number of deaths given is 10 per cent. above the average for March in the five previous years, and is equal to an annual death-rate of 10·12 per 1000 of the estimated mean population of the year. When corrected by the inclusion of the metropolitan proportion of the deaths in benevolent asylums throughout New South Wales the death-rate becomes 10·59 per 1000. A mortality above the average was experienced under the following heads:—Typhoid fever, diarrhoeal diseases, phthisis, bronchitis, diseases of the heart and blood vessels, cancer, Bright's disease, diseases of the nervous system. Diarrhoeal diseases were responsible for 67 deaths, or seven more than the previous quinquennial average for March. Infectious diseases other than diarrhoea caused 23 deaths, of which 15 were due to typhoid fever, 3 to puerperal fever, while scarlet fever, influenza, diphtheria, cerebro-spinal fever, and erysipelas each caused one death. Respiratory diseases caused 32 deaths. Bronchitis, which was responsible for 14 deaths, was more fatal than usual, while pneumonia, with 13, was less so. Phthisis caused 40 deaths; diseases of the heart and blood vessels, 58; cancer, 42; Bright's disease, 32; and diseases of the nervous system (excluding convulsions), 25. Deaths of children under one year of age numbered 110. This figure is equal to an infantile mortality rate of 90 per 1000 births, and is below the average for the month. The chief causes of infantile mortality were:—Diarrhoeal diseases, 42; developmental diseases, 24; premature birth, 23; convulsions, 3; meningitis, 3. 261 attacks of notifiable infectious diseases were notified; 68 of these were due to scarlet fever, 101 to diphtheria, and 91 to typhoid fever. The number of attacks of scarlet fever was below the average for March, while those of diphtheria and typhoid fever were both in excess. Within the city of Sydney 19 cases of pulmonary consumption were notified under the City Council's by-laws. Eight dwellings were disinfected after the deaths or removal of consumptive persons.—Report for April, 1908:—Registered deaths of residents in the metropolitan municipalities during April numbered 468. This figure has been arrived at after the distribution to their proper residential districts of the deaths of all persons in the general hospitals and in the hospitals for the insane. It does not, however, include any deaths in the benevolent asylums of Parramatta, Rookwood, Liverpool, and Newington. The mortality is slightly above the previous average for April, and is equal to a death-rate of 9·87 per 1000 of the estimated mean population for the year. When corrected by the inclusion of the metropolitan proportion of the deaths in the benevolent asylums enumerated above, the death-rate becomes 10·38 per 1000. Diarrhoeal diseases caused 63 deaths, of which 59 were certified as due to enteritis, and 6 were ascribed to diarrhoea. The total number of deaths under this heading is three more than the average for April during the five previous

years. Twenty-eight deaths were due to the group of infectious diseases. They were distributed as follows:—Scarlet fever, 1; diphtheria, 8; typhoid fever, 8; plague, 1; puerperal fever, 9. Typhoid fever and diphtheria were both more fatal than in any April during the past four years. Phthisis, with 32 deaths, caused an average mortality, but cancer (44 deaths), Bright's disease (33 deaths), and diseases of the heart and blood vessels (62 deaths) were all more fatal than usual in April. Respiratory diseases were less fatal than usual, causing 24 deaths. Deaths of children under one year of age numbered 107, which is equal to an infantile mortality rate of 91 per 1000 births. This is well below the average for April. The chief causes of infantile mortality were:—Diarrhoeal diseases, 45; premature birth, 16; developmental diseases, 23; respiratory diseases, 4; accidents, 3. 278 attacks of notifiable infectious diseases were notified. Scarlet fever was responsible for 122, and was more prevalent than for many months. There were 95 attacks of diphtheria and 61 of typhoid fever. No cases of plague occurred, but the death took place during the month of a patient who was discovered to have plague on March 30th. Within the city of Sydney 13 cases of pulmonary consumption were notified, and six dwellings were disinfected by the City Council after the death or removal of consumptive persons.

Rat Destruction.—The City Council recently carried a resolution to the effect that a capitation fee of 3d a head be paid for male rats and 6d a head for females. The Board of Health has given the matter consideration, and in a communication read at the City Council meeting recently, it was stated that since March, 1906, a capitation fee had been paid by that Department for all rodents delivered at the depot at the rate of 4d a head each for rats and 1d each for mice. The Board, after considering the matter fully, said it was of opinion that no public advantage would be derived from the change suggested.

Bubonic Plague.—Two additional cases of bubonic plague have been reported in Sydney within the last fortnight. One was in a child of three years of age, residing at Waterloo, in an area which was found to be in a very insanitary state. She died after a few days' illness. The source of infection has not been definitely traced. The second case was that of a man 30 years of age, residing at North Sydney, whose case was notified after a few days' illness, and he was removed to the Coast Hospital. In his case, also, the source of infection has not been traced.

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, April, 1908:—

Colour	14° Brown.
Clearness	Mixed.
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·8000
Chlorine	3·3000
Free ammonia	·0000
Albuminoid ammonia	·0120
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0046
Oxygen absorbed in 4 hours	·0678
Permanent hardness	1·9
Total	3·25

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during April, 1908 :—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification		Incubator Test. Seven days at 57° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood	Faint	Nil	1.44	11.8	1.382	.128	.047	.910	—	.548	90.3	88.8	No decomposition
Folly Point.. ..	Slight	Nil	1.68	10.0	1.790	.146	.024	.576	—	.605	86.7	85.3	„ „
Balmoral	Nil	Nil	1.42	12.0	.625	.086	.018	1.928	—	.482	94.2	91.2	„ „

Food Adulteration.—The city and sub-urban councils submitted to the Board of Health last month 259 samples of food for analysis, including 212 samples of milk. In 26 cases the chemical evidence was such as would appear to support prosecution being undertaken. Fourteen of the milk samples and 13 out of 18 samples of meat were found to be adulterated, while no adulteration was detected in 12 samples of spirits taken in the city. The Board decided that warnings be addressed to three vendors.

Infectious Diseases.—Typhoid fever still continues unpleasantly prevalent in the country districts. During the fortnight ended April 20th, 154 cases and 18 deaths were notified to the Board of Health. Thirty-three cases (four deaths) came from the metropolitan districts, six cases (one death) from the Hunter districts, and 115 cases (13 deaths) from the remainder of the State. There were 11 cases at Wagga Wagga, 13 at Tamworth, 8 at Tumberumba, and 20 at Broken Hill. Of 135 cases of scarlet fever reported during the fortnight, 61 belonged to the metropolitan districts (Sydney 7 and Marrickville 17), 26 to the Hunter districts, and 48 to the remainder of the State (Abercrombie shire 8 and Bathurst 15). The cases of diphtheria reported numbered 78, of which 39 (and two deaths) came from the city, six cases from the Hunter River, and 33 cases (one death) from the remainder of the State. Seven cases were reported from the municipality of Penrith.

Victoria.

Typhoid Carriers.—In view of the recent discovery of the possibility of outbreaks of typhoid fever being due to typhoid carriers, an investigation is now being made in order to discover whether there is such a being among the inmates of the Kew Asylum. During the past year there have been periodical outbreaks of typhoid in this institution, despite the fact that the drainage has been remodelled, and every step has been taken by the officers of the Board of Health and the Lunacy Department to prevent infection. The original case, which occurred about a year ago, was that of an elderly female patient, who died without having any symptoms of typhoid, but in whose spleen typhoid bacilli were found at the post-mortem examination. It has been suggested that the mysterious outbreaks of the disease in the Kew Asylum may be due to a "typhoid carrier" and the necessary tests are being made to prove or disprove the accuracy of this suggestion.

South Australia.

Health of Adelaide.—The medical officer of health reported that during the fortnight ended April

11th three cases of typhoid fever and four of pulmonary tuberculosis were notified. Of the three cases of typhoid fever, two were imported from the country for hospital treatment. The remaining case was isolated at home. All the cases of pulmonary tuberculosis were imported for hospital treatment. The city trained nurse had made 108 visits to 58 cases during the fortnight, and finally disinfected 10 houses. Of the 58 cases under her care, two were suffering from typhoid fever, 55 from pulmonary tuberculosis, and one was suffering from erysipelas.

Tasmania.

Health of Queenstown.—For the quarter ending March 31st there were 40 births at Queenstown and 13 deaths. Of the latter, six were infants, all of whom died of diarrhoea, caused through the prolonged dry weather. This mortality, the health officer says, is not in excess of the average for the same quarter for the last six years. During last month the two local doctors treated 109 cases of measles and 52 cases of influenza.

Queenborough Sanitation.—Recently the Marine Board received a letter from the Women's Health Association, drawing attention "to the insanitary condition of the Arches at Sandy Bay," and stating that several complaints had been made to the Queenborough Board. The condition of the Arches was held by several members of the Association to be "a great menace to health, and a transgression against order and decency, and also the Wellington Rivulet is in a most insanitary state." The letter concluded by stating that, as the association could get no satisfaction from the Queenborough authority, it was thought desirable to approach the Marine Board. The complaint was forwarded to the Chief Health Officer, and Dr. Elkington sent the following reply, which was read at a recent meeting of the Marine Board :—"The latter of these sewers (Wellington Rivulet) has been improved of late by reconstruction at the outlet, and works on its upper course, after long pressure by this department. Regarding the former (Arches), profuse and repeated promises of immediate rectification from the Warden have been the only result to the present date. If improvement cannot be obtained in any other way, it is proposed shortly to apply for judicial enforcement of such improvement."

Queensland.

Bubonic Plague.—The Commissioner for Public Health reports for the five weeks ending May 9th :—Case 10 : H.A., a Chinaman, aged 23 years, em-

played as a gardener near Yeerongpilly, a suburb of Brisbane, took ill on the 16th April, 1908, and died on the 19th idem; the post-mortem specimens revealed numerous *pestis bacilli*. Plague in rodents.—2199 rats and 191 mice destroyed, 1656 rats and 189 mice examined. Date of last infected rat, May 5th, 1908. *Mackay*.—A fatal case of plague occurred at Mackay on April 29th, 1908. The deceased, a Chinese fisherman, resided at a fish shop in the town of Mackay. Contacts were isolated and necessary precautions taken to deal with the patient's late domicile. A guinea-pig inoculated with serum from deceased died on the 1st instant, and the microscopical examination revealed the presence of *bacilli pestis*.

Pneumatic Chambers.

BAD REICHENHALL, the celebrated watering place on the Bavarian mountains, which is visited every year in increasing numbers by Australians, has been uninterruptedly improving and completing its appliances for treating patients, and has furnished the most successful cures of chronic catarrh of the air passages, the most varied forms of phthisical disease, emphysema, asthma, and so on. It may therefore be of interest to give a description of the latest appliances for treatment there, which have been installed by an engineer specialist of Munich, and have served as examples for other places.

Compressed air, as is well known, is used as a remedy, in pneumatic chambers, in cases of chronic bronchial catarrh, bronchial asthma, emphysema, for the absorption of exudations after pleuritis, for the expansion of the lungs, in affections of the ear, chlorosis and anæmia, and latterly in operations.

The construction of the pneumatic chambers was formerly very primitive. They consisted of iron boilers with round or elliptical floors and small doors and windows. The absence of every comfort whatever made the entrance into and stay in such an iron cage extremely uncomfortable, and one could not wonder at new patients frequently being afraid of allowing themselves to be shut up in such a dark boiler.

Mr. H. von Hoessle, a well-known engineer of Munich, has now made a radical change, and supplies pneumatic chambers in a condition of perfection which complies with the highest requirements of science and technical skill. The following is a brief account of these, the latest pneumatic treatment installation at Bad Reichenhall.

Picture to yourselves four chambers with the anti-chambers built together in one line, which makes it possible during a sitting to allow one patient to leave without interrupting the service.

In the interior of a chamber 16 persons can comfortably find room. It is well lighted by sufficiently large windows and by electric light. The patients sit on comfortable chairs, and are separated from one another by small screens. Each patient has a separate spitting receptacle before him, and besides each chamber is provided with a spitting receptacle with running water for general use. Each chamber is further connected with the drinking water supply. The patients can communicate by telephone with the management of the institute and the physician in charge.

The air compressors may be driven by any kind of power. They draw the air from the open and force it, after it has been filtered, through the air-box, the refrigerating and heating apparatus into the pneumatic

chambers. In the exhausts which are attached to the chambers there are regulators, which can be set from minute to minute during the sittings of nearly two hours, to maintain the atmosphere in the chambers at the prescribed pressure. In calculating the quantity of air allowed for each patient the well-known scientific principles are applied, and such additions are made as many years' observations in practice have shown to be advisable, so that the amount of oxygen in the air in the chambers corresponds most exactly to the requirements of medical science.

The above described latest installation at Bad Reichenhall contains in the four pneumatic chambers 64 seats, which are all occupied during the height of the season.

The institute was visited in the autumn of 1905 by 300 German and Austrian physicians while on a tour of investigation, and found on this occasion unanimous approval and acknowledgment.

HOSPITAL INTELLIGENCE.

Royal Prince Alfred Hospital.—The report presented to the annual meeting of the supporters of the Royal Prince Alfred Hospital last month stated that in this, the second year under the new conditions, with 320 beds in occupation, the number of inpatients treated was 4553, as against 4545 in 1906, an increase of 8 only, though the number of beds occupied was only on the average 290 every day, as against 295 in 1906. This was due to the fact that the average residence of each patient in the hospital was nearly one day less than in the previous year. There had been a marked increase in the number of operations, which was almost 5 per cent. higher than in the previous year. The new departments for therapeutic inoculation and for the treatment of certain diseases by means of various physical exercises and massage were expected to prove a valuable adjunct. Dr. Clubbe, who had been a member of the surgical staff for a great number of years, had retired, and had been made an honorary consulting surgeon. His place had been filled by Dr. G. H. Abbott, honorary assistant surgeon for eight years previously, Dr. Abbott's position being filled by Dr. F. P. Sandes. The board had made it possible for a senior member of the staff to serve a third term of six years, or a total of 18 years instead of 12 as formerly. This was to overcome the anomaly that physicians or surgeons might, under the rules, have to vacate their positions while yet in their prime. At the same time, every member of the honorary medical staff, except University lecturers, had to retire at the age of 60 years, instead of 65 as formerly. The massage staff had now become a valuable assistance. The nursing staff had been increased during the year, partly on account of the opening of the new theatres, and partly on account of the large number of typhoid cases. The suggestions submitted to the board upon his return from Europe by the secretary had, as far as adopted, met with excellent results. The efforts of local committees in the districts surrounding the hospital had not been quite as successful as in former years, and the secretary was now making arrangements to hold biograph entertainments, displaying some of the work done at a big hospital. Financially, the year showed the small deficiency of £116. During the year they gave a full trial to the system of purchasing certain lines of food supplies at wholesale rates in the open market, and the result had been satisfactory. The board had forced upon it

during the year the fact that the front of the hospital was quite out of keeping with the rest of the buildings. It was resolved to have the grounds remodelled, areas formed in front of the new pavilions, a brick wall built on the northern boundary, and other necessary alterations made. A contract was let at a price which works out, with certain additions, at about £1600, and the bulk of this expenditure would fall upon the current year's revenue. As the expenditure in one or two other directions, such as for coal, etc., would be higher, they anticipated a considerable deficiency, perhaps £1500. They would also be affected by the decision of the Government transferring the Coast Hospital general beds to this hospital. The board spent £2000 in furnishing the new wards, which were ready now for at least 150 more patients. Now the Government had informed the board that the transfer would not be made. Thus they were left with over £2000 worth of ward furniture, bedclothes, blankets, etc., on hand. They hoped that the Minister in charge would see his way at least to recoup the board's expenditure. They would like the Government to grant enough to support 100 new beds. These beds were necessary for the sick of the metropolis. Besides the completion of the new pavilion, the theatres had been finished, and were in full use. New lifts and steam heating had also been introduced. Much remained to be done; for example, building of a new chapel.

Launceston General Hospital.—At a meeting of the board of management of the Launceston General Hospital held last month the visiting committee reported that a portion of the old operating theatre had been equipped with an extra dental chair, and that other apparatus has been installed. In reference to the item in the report that the number of patients who paid fees was far greater than those who were admitted free, Dr. Pardey said he considered that the hospital was for the sick poor, and not for the sick rich. Care should be taken as to who was admitted, and those who were able to pay for treatment outside should be excluded. Many who were receiving treatment at the hospital should have been sent to private hospitals. The chairman said that according to the laws governing the institution which existed at the present, they were not justified in excluding anyone. They had no right to discriminate between persons who could pay and those who could not. A letter was passed in which the chairman stated that the funds in connection with the Children's Hospital exceeded £1300, and would probably reach £1400 before long. A letter had been sent to the Government, asking that its consent be given to putting in the foundations. The finance committee reported that the fees received during March totalled £219 3s 11d, and that for the nine months passed of the financial year the receipts from the same source were £1557 9s 6d, as against £1492 13s 3d received during the corresponding period of the preceding year. The expenditure for the month was £683 15s 5d, and exceeded the revenue from all sources by £89 11s 6d. The hospital, the report added, was still full of patients. During the month 130 were admitted and 131 discharged, and there were 12 deaths. Of the 130 patients, 76 were paying and 54 were on the free list.

Brisbane General Hospital.—At a meeting of the committee of the Brisbane General Hospital last month the medical report showed that the in-patients admitted numbered 324. During the same period there were discharged—cured or convalescent, 88; relieved or improved, 195; *in statu quo*, 17; and to the Reception House, 3; deaths, 21; remaining under treatment, 230. The out-patients' attendances at the hospital

totalled 2476. At the Convalescent Home at Sandgate there were 17 patients. The maintenance account showed that during the month £469 2s 4d had been received, and expenditure totalling £530 15s 6d incurred. The debit balance now stood at £297 15s 6d. Accounts amounting to £530 15s 9d were passed for payment. The Chairman was instructed to consolidate a number of fixed deposits falling due shortly, totalling £1068, and to place that sum at fixed deposit for two years at 4 per cent.

Adelaide Hospital.—The annual report of the board of management of the Adelaide Hospital for 1907 states that the patients remaining in hospital, December 31st, 1906, 112 males, 77 females, total 189; admitted during the year, 1679 males, 1343 females, total 3022; grand total of patients for year, 3211; discharged cured or convalescent, 1376; relieved, 1107; unrelieved or discharged at own request or absconded, 251; died, 276; rate of mortality, 7.8 per cent.; number of out-patients, 21,287; number of operations, 1405. The Metropolitan Fire Brigade was called to an imaginary fire at the hospital, the object being to test the promptness of the brigade and the appliances at the hospital. The brigade went through various evolutions, and the board was greatly pleased with their smartness, everything being found in good working order, and the visit gave complete satisfaction. It was resolved that classes of three months' duration be held by the honorary bacteriologist for instruction in bacteriology, fee for which will be £3 3s, with £1 1s extra for use of the laboratory. The new steam laundry has now been installed, and is in thorough working order. There were 21 cases of midwifery attended to during the year. The Adelaide Hospital having come into possession of two-fifths of the South Australian estate of the late Thomas Martin, which is valued at about £80,000, the rents from which are at present only received, the board has considered the advisableness of building a Nurses' Home, which has been a great want for some time, and with the splendid assistance now at hand has appointed a building committee, comprised of the Hon. G. Brookman, M.L.C. (chairman of board), Mr. W. G. Coombs, Esq. (deputy chairman and chairman house committee), Mr. Archibald Mackie (chairman of finance committee), and Dr. R. S. Rogers (chairman of medical committee) to go into the whole matter, and with the assistance of Mr. C. E. Owen Smyth, I.S.O. (Superintendent of Public Buildings), are considering the plans and necessary details, and it is hoped that the coming year will see the commencement of this new home. The board of management desire to place on record their high appreciation of the inestimable services rendered throughout the year by the honorary medical and surgical staff of the hospital.

Infectious Diseases Hospital, Melbourne.—From the Melbourne Age we learn that an inquiry was recently made by the Inspector of Charities, Mr. Short, into complaints of the parents of a boy that he was discharged from the Infectious Diseases Hospital in an unclean condition, and was retained in the hospital for an unduly long period, during which his parents were not allowed to see him except from a distance, and could not obtain satisfactory information as to his condition. The report states that the boy was admitted on November 18th, and during a lengthened stay was under special treatment. The rules of the hospital, as a precautionary measure, did not admit of outside communications with patients, but full particulars of their condition were, it was stated, always obtainable. That the child was brown when discharged was naturally due to the open air treatment. Evidence showed that the child's head was clean when he was admitted. Some

little time after admission vermin were observed in his hair, and cleansing was done regularly, but the hair did not appear to have been cleared of nits. Owing to the treatment they were harmless. The rule of the hospital now was that except in the case of girls over 15 years of age the hair of all children should be cut short. The hospital authorities were to blame in handing the child over to his parents in other than a clean condition. It would be no harm if the Board of Health, which contributed to the maintenance of the hospital, were to send its medical inspector there occasionally.

Hobart Hospital.—At the monthly meeting of the hospital board the visiting committee reported that on the 27th ult. tenders were invited for the renovation of the interior of the Nurses' Home. The work to be done was pointed out on the 1st inst., and five tenders were received. The committee recommends the acceptance of the lowest tender, and trusts that authority will be given for this long-delayed work to be at once proceeded with. The attention of the Government has been drawn to the urgent necessity of having the hospital buildings connected with the underground drainage scheme with as little delay as possible, and also to the fact that it will be necessary to provide additional accommodation at the Nurses' Home for the extra nurses required for the Children's Hospital. The work of the hospital still continues heavy, and is materially increased by the great inconvenience caused through cases of diphtheria being received for treatment. A report of the finance committee showed that the fees collected during the month amounted to £120 0s 9d. During the month of March 247 patients were treated in the hospital, of which number 131 were discharged, 13 died, leaving in the institution on April 1st 61 males and 39 females. Of the 247 in-patients, 124 were from country districts; 121 were paying patients and 126 admitted free. The daily average of occupied beds was 117, as compared with 104 during March, 1907, and 86 in 1906. A letter was read from the Chief Secretary, intimating that the assistant house surgeon should not have been engaged and started on his duties until the appointment had been approved by the Governor-in-Council, as provided by the Act. The chairman read his letter in reply, stating that the board had only pursued the practice which had obtained since sole control had been placed in the hands of a board of management, and to this practice no exception had previously been taken. Dr. Crowther said the members of the board were the best judges as to what should be done in the best interests of the hospital. The appointment which had been made was a very satisfactory one. The Mayor gave notice to move at the next meeting—"That in future all recommendations for the house surgeon or matron with reference to the members of the staff be submitted to the board before being referred to the various committees. That all agreements made with nurses who entered the board's service during the year 1904 be tabled. That a report be obtained from the matron as to the verbal arrangements (if any) made with the nurses in reference to their training in the operating theatre."

Tasmanian Consumptives' Sanatorium.—Dr. Macgowan, honorary physician to this institution, has prepared the following report:—"The sanatorium was opened on December 8th, 1906, with accommodation for two patients. New chalets have been built from time to time as circumstances would permit, and we have now room for seven patients. Since we admitted our first patient 16 months ago we have discharged 15

cases. Of these, eight were in the first or early stage of the disease, and they have all been discharged as cured and fit for work. Six patients were in the second, or more advanced, stage; of these, two left at their own request before treatment was completed, one at the end of three weeks' residence, during which time she gained five pounds in weight, and the other one left at the end of ten weeks, having gained 17 lb. in weight. The remaining four of these second-stage cases all did well, though they took considerably longer than the first-stage or early cases. The one case admitted in the third, or late, stage of the disease was, unfortunately, also complicated by heart disease, and though the patient greatly improved in weight and general appearance, the disease was not arrested after six months' treatment, and she was discharged. The committee would, as the result of experience so far gained, emphasise the necessity for patients to present themselves for sanatorium treatment at as early a period as possible. The average stay in the sanatorium for the early cases was four months, and of the later or second-stage cases, seven months. The treatment generally shows at first a decided gain in weight with a fall of the body temperature (that is, loss of fever); then, later on, as exercise can be taken, the weight gained is, to some extent, lost again, but we endeavour to keep the weight, even during exercise, several pounds heavier than the normal weight of a healthy person of the same age and height. When patients have lost their fever, have little or no cough, and no expectoration, or only a small quantity, and that free from tubercle bacilli, and, in addition, are able to walk slowly several miles a day without undue fatigue, they are discharged as fit for light work. It is advisable, however, that such patients should continue to observe sanatorium principles for some time after their discharge from the institution, as, having once had the disease, they are prone to relapse, or even to contract it anew if living under unfavourable hygienic conditions. It hence becomes a question for the future to find suitable occupations for those discharged. So far, the committee have not been able to take any steps in this direction. The average gain in weight of the patients at the time of their discharge from the sanatorium has been 12 lb. Treatment of this complaint under sanatorium principles takes a long time, and it is advisable for all cases to remain at least three months, though many require six months or longer. Under these circumstances, the committee feel pleased to record eight patients as cured and six very greatly improved—four of them sufficiently so to enable them to do work of a suitable nature—and to have accomplished this in the first 16 months of work. Several cases are now under treatment, and the patients show great improvement in their condition. We are also dealing with other applicants for admission."

Melbourne Hospital.—A report presented to the committee of management of the Melbourne Hospital stated that though the hospital had beds for only 309 patients, there were 332 patients in the institution. Beds had to be made up in corridors, balconies and elsewhere wherever space could be found. There was no help for this overcrowding as far as the committee could see. The public applied for admission, and those whose cases were urgent had to be taken in and cared for. It was quite out of the question to turn them away. It was pointed out that this overcrowding was a violation of the health regulations, but the committee could see no way out of the difficulty. Other hospitals, it was understood, were in a similarly congested state.

Brisbane Hospital.—The 59th annual report for the year ended December 31st, 1907, shows that the in-patients remaining in hospital on the last day of 1906 numbered 214; admitted during 1907, 3550; total number that were under treatment during the year, 3764. Discharged, cured or relieved, 3066; discharged incurable or at own request, 149; transferred to the asylum or reception house, 18; died, 323; remaining in the hospital on December 31st, 1907, 208. The number of patients admitted marks an advance upon the previous year of 147 cases. The greatest number of beds occupied at any time during the year was 247, the smallest 174, and the average stay in hospital was 20.3 days. The rate of mortality, reckoned upon those patients who passed out of the hospital during the year was 9 per cent. Counting only those who survived until the third day, it was 6.7. The number of out-patients treated at the hospital during the year numbered 6550, and their attendances totalled 25,706. At the branch dispensary there were 472, aggregating 3385 visits. In 1906 the corresponding figures were 7167, 27,571, 345, and 2817. The diminution in the number of out-patients is not necessarily a matter of congratulation, occurring as it does, with an increase of in-patients. Many cases have to be admitted that could be well served by out-door treatment, if only there were facilities for conducting the work. The limited space and bad accommodation for carrying out the treatment of out-door patients is the occasion of inconvenience and deprivation to the sick, an incessant cause of irritation to the medical men, and a continual expense to the subscribers, since it is manifestly more costly to admit than to treat outside. *Staff changes.*—In April two members of the Honorary staff, Dr. Carvosso (visiting physician) and Dr. McDonald (assistant physician), resigned on account of pressure of other work. Dr. Carvosso was succeeded by Dr. Page, who had for some years rendered loyal service in a less congenial department. Dr. A. H. Marks has taken over the duties of assistant gynaecologist. Dr. A. A. Doyle has accepted the post of honorary radiographer, and Drs. Herbert J. Stewart and Jack M. Thomson have accepted the offices of assistant physicians. *Resident staff.*—Dr. Buchanan left in February, and entered the service of the Queensland Government on the staff at the Hospital for the Insane at Goodna. Dr. W. O. Doyle followed in April to act as *locum tenens* for Dr. Voss, at Rockhampton. In October Dr. Foxton also retired to take up other work. These were succeeded by Dr. J. Goodall Avery, Dr. Gordon A. Paton, and Dr. John Semple. On November 12th Dr. Paton contracted a dangerous illness which laid him up for three months, at the expiration of which he was granted indefinite leave for convalescence. His place was filled by Dr. Lawrence B. Elwell. Acting upon the recommendation of the Medical Board, the Committee have increased the number of resident medical officers to five. The fourth resident, Dr. R. C. Miller, joined on January 31st last; the appointment of the fifth officer will not be made until the pathological laboratory is ready for occupation. In future the engagement will be for 12 months, with extension at the committee's option, and only the senior resident, who will act as resident pathologist, will receive the salary hitherto paid. *The Convalescent Home.*—The number of patients discharged during 1907 was 490, every one of whom enjoyed at least a week at the seaside, provided with a liberal diet and protected from those indiscretions which so jeopardise the welfare of patients during the early days of returning strength. *The Branch Dispensary.*—Although the attendances at the branch dispensary in South Brisbane have considerably increased, the more

serious cases prefer to attend the hospital, and the practice at the branch is largely confined to the recipients of Government relief. *The Pathological Department.*—In October, after consultation with the medical staff, the committee determined upon the instalment of a pathological department in the hospital. The building of the laboratory will shortly be completed. Dr. Jack Thomson, formerly resident pathologist at Sydney Hospital, has been appointed honorary pathologist here. *New Septic Tents.*—The need of more and better accommodation for septic surgical cases has been met by the erection of two new tents, or pavilions, which are proving most satisfactory. The walls are composed of canvas blinds worked on spring rollers, so that they can be arranged entirely at pleasure. These rollers are of American manufacture, and those for one of the tents, which have been on order for some ten months, are yet on the high seas. *General.*—Beyond the building of the two pavilions and the laboratory and laying new floors to the verandahs of the fever wards, the funds at the disposal of the committee would not extend. *Needs.*—The committee state that the time is fast approaching when there must be a large outlay on the buildings. A good part of the hospital is now 40 years old, and is suffering from age. The increase of indoor surgical work has necessitated extension of accommodation, and Ward XV, a temporary building erected in a few days to meet a pressing emergency, has for many years been forced into service as a modern ward. It cannot last much longer, and should never have been suffered to serve in its present capacity so long. The septic treatment of the sewage, which is so admirably carried out at Diamantina Hospital, in South Brisbane, would rid this hospital of a great nuisance as well as effect a considerable annual saving. A general hot water service is still lacking. Another want is a room for administering anaesthetics. In 1903 there was presented to the hospital a complete X-ray outfit. During last year, apart from the service rendered to a number of in-patients, there were 1172 attendances. In the out-patients' department a new up-to-date building is so sadly needed that if the want could only be appreciated by those who possess means the committee are confident the existing conditions would be remedied. The honorary outdoor surgeons constantly complain of the defective arrangement for their work, and, as for the Medical Superintendent, when the honoraries are in attendance, he has only the verandah in which to examine any case which the Ambulance Brigade may bring in, the small casualty room being occupied for other purposes. The need of a proper casualty department, with provision for the examinations and operations necessary for such cases, is one of the most pressing nature. *Legacies.*—The Legacy Fund has benefited to the amount of £532 10s 7d. Of this, £500 was received on account of a bequest of the late Andrew Colville Reid, and £20 from the estate of Miss Margaret Fleming. Since the close of the year £100 has been received from the estate of the late Thomas Knowles, and a further sum of £213 2s 4d, representing the final dividend of the Reid bequest. The accumulated Legacy Fund now amounts to £4031 18s 5d. *Finance.*—The year 1907 opened with claims paid, dues received, and a balance in hand of £1071 14s 2d. It closed with an apparent overdraft of £626 18s 2d. There was due, however, from the State, and received early in January, £2000 12s 11d, so that the year actually closed with a credit of £1373 14s 9d. The total receipts from voluntary contributions amount to £5371 13s, or £609 less than in 1906—the year of the special effort. The ordinary expenditure is remarkable for its steadiness. The greatest difference between any of the last three years is £62, and the difference

between the average of those three and any one of them varies from £7 to £34.

Warrnambool Hospital.—A deputation was introduced recently to the Premier from the hospital of Warrnambool. The committee of the Warrnambool Hospital had endeavoured as business men to bring the institution up to date, and whilst only very partially succeeding, had landed it in debt to the amount of over £500. They now wanted to erect a new surgery, dispensary, out-patient's department and bacteriological laboratory, the estimated cost of which was £700. The Inspector of Charities, moreover, had just reported that the building required renovating throughout at a cost of £200. It was further stated that the total ordinary revenue for last year was only £1932, of which the Government contributed £1100. The weekly average of patients numbered 25·8, and 38·1 in the contiguous Benevolent Asylum. The Premier said if £500 were raised locally he would recommend the Cabinet to give £500. The deputation promised to do the best it could to get £500 raised in the district.

Infectious Diseases Hospital, Hobart.—The committee appointed by representatives of municipal bodies of Hobart and suburbs concerned in the question of joint cost of an infectious diseases hospital, met last month to confer upon ways and means. The report of the Chief Health Officer (Dr. Elkington) on the character of a building, its internal arrangements and other details, suitable for an infectious diseases hospital was read by the Town Clerk. The cost of the building, including the administrative block, offices, and many other requirements and furnishings, would be £6000 to £7000. If the present building (Vauluse, in Upper Macquarie-street district) could be partly utilised, about £1200 might be saved. The approximate population to be served was 36,504, made up as follows:—Greater Hobart, 27,025; Queenborough, 2312; New Town, 2484; Glenorchy, 2635; Clarence, 2045. Of every £100 expended on a population basis, Greater Hobart, as at present constituted, would contribute £74 1s, Queenborough £6 6s 8d, New Town £6 18s, Glenorchy £7 4s 4d, Clarence £5 12s. Dr. Spratt thought they might take the normal requirements at 25 beds as a maximum, with typhoid cases continuing to be treated at the General Hospital as at present. He reckoned that the fixed minimum cost of upkeep of the hospital would be £375 to £400 per annum, apart from starting to deal with cases. Mr. Ball said he foresaw difficulties arising in cases from outside districts, and desired the committee to wait upon Dr. Elkington, with a view of getting him to approve of the municipal districts of the whole of the South uniting in erecting one hospital and bearing the cost *pro rata*. This was agreed to, and the committee adjourned.

Home for Incurables, Adelaide.—The 29th annual report of the institution, states:—The total receipts amounted to £5980, special donations and bequests £3194, and street collections £504. The expenditure on maintenance account was £2577, and new buildings and furnishings £1655, making a total of £4232. The capital of the endowment and reserve funds now stands at £8557, which is invested in State bank bonds, bank deposit, Savings Bank, mortgages, and freehold estates. The available balance to credit of general fund is £1671. On the date of the previous report there were 103 patients in the home. During the year 53 have been admitted, 6 have left, 31 have died, and the number now in the home is 119. The

total cost of the establishment for the year amounts to £24 1s 7d per head per annum of the inmates, or about 9s 3d per week. The cost of maintenance for each inmate—that is, for actual food and necessities—is about 4s 2d per week. The expenditure has been kept carefully within the lowest possible limits consistent with proper care and well-being of the inmates and the maintenance of the character and usefulness of the institution. Increased accommodation for patients and staff has been provided by extensive additions to the buildings, and the additional beds are occupied. Other improvements have also been made in building and grounds. As a result of the annual garden fête on November 23rd last, notwithstanding unpropitious weather, £204 was added to the revenue. The amount received from the street collection in September was £438, and from sale of the bullock presented by Mr. R. T. Melrose and guessing competition, £66. Beds have been endowed by Mrs. P. Waite, Sir Edwin Smith, Dr. J. C. Verco, the Hon. J. J. Duncan, and Messrs. R. Barr Smith and W. Goodliff. Six beds are reserved for the use of patients nominated by the Destitute Board, and are all occupied. The committee announces with regret the death of Mr. A. S. Clarke, who acted as collector for the last four years and diligently performed his duties. Miss Lucy Webb has been appointed to the position. The spiritual welfare of the inmates is not neglected. Services are regularly held at the home, and visits by clergymen of all denominations are frequently made. The names of Mesdames J. Ashton, E. Malpas, and H. D. Naylor have been added to the committee. By the death of Mrs. S. Gully, which took place on January 5th, the institution has lost a sincere friend, and the committee has been deprived of the services of a diligent and earnest worker. Numerous entertainments and amusements have been provided by friends during the year, thus affording much pleasure to the patients, who always thankfully acknowledge the kindness.

The question whether cases of appendicitis are not much more common than they formerly used to be is frequently answered in the affirmative by medical practitioners. As a kind of explanation for this deplorable increase the larger consumption of meat is generally pointed to. In order to decide this momentous question, Dr. Villaret, Surgeon-General of the Prussian Army, studied the statistics of abdominal diseases in the Prussian army for a period of 27 years—from 1873 to 1900. There was indeed an increase in the treated cases of appendicitis by not less than 70 per cent. As, however, the regulation diet remained exactly the same, there is no possibility of explaining this rise of figures from a change in the nourishment of the soldiers. Dr. Villaret calls attention to the startling fact that three other groups of diseases, which, as a matter of fact, were often confounded with appendicitis, show a decrease in almost the same proportion, viz., peritonitis (a decrease of 70·2 per cent.), chronic diseases of the stomach (a decrease of 79·9 per cent.), and liver complaints (a decrease of 64·2 per cent.). If one looks at the reports on post-mortem examinations the diagnostic errors gradually disappear. It is, therefore, a sound conclusion that the increase of cases of appendicitis is only an apparent one, while in reality the number was just as appallingly large in former times, when only the more obvious cases were detected as such. Therewith the whole speculation whether or not our food may account for the alleged greater frequency falls to the ground.

The New Melbourne Hospital

ACCORDING to the *Age* a special meeting of the committee of the Melbourne Hospital was held on March 11th to deal with letters received from the Wilson trustees and the City Council concerning the motion carried by the committee recently, in which a majority held that the Parkville site was the most desirable. A petition was also read from a number of life governors who were desirous of seeing the hospital built upon the present site, asking that before any change was decided upon the opinion of the best experts available should be obtained. A letter to the chairman was also read from the trustees of the Sumner estate, who stated that in the event of the new hospital building being retained upon the present site an amount of £20,000 would be made available from the funds of the estate for building purposes.

The Chairman said the position had now assumed a peculiar phase. The committee had decided for the Parkville site, and the Wilson trustees had been asked to approve of it. They had also received the terms upon which the City Council would be willing to let them have the Parkville site. The question now was to ascertain whether they could obtain the money—£13,000—to pay the Council the half cost of improvement asked for, and whether the Dudley-street site, the second condition the City Council insisted upon, could be made available in lieu of the Parkville site. As far as the hospital committee was concerned, it had no means of finding either money or land; in fact, it would have to trust to the Premier for assistance. There was another difficulty in the fact that the Wilson trustees had made it plain that they desired the new hospital on the present site, and had offered another £20,000 if it was built there. Now the Sumner estate trustees had come forward with a similar generous offer of £20,000 on the same conditions, and Mrs. Bowen had written to him privately offering £1000 towards building the hospital on the present site.

After a long discussion, the following motion was carried:—

"That a deputation wait upon the Premier to inform him of the terms on which the City Council is willing to part with the site of the horse, cow and pig market for the building of the Melbourne Hospital, and to ask him to what extent he is willing to assist the committee in satisfying the Council's terms and conditions free of cost to the hospital."

Mr. Nicholson also gave notice that at the next regular meeting he would move:—

"That the resolution carried at a special meeting of the committee on 26th ult., affirming that in the opinion of the committee the site at Parkville is the best site for a new Melbourne Hospital, be rescinded, in view of later developments, and that contingent upon the passing of this motion the new hospital be built on the present site."

At its next meeting the Melbourne Hospital committee decided to build the new hospital on the site of the present one. The president announced that in addition to £20,000 promised from the trustees of the Edward Wilson Estate, £20,000 from the Sumner estate (through Dr. Charles Ryan), and £1000 from Mrs. Aubrey Bowen, Mr. Septimus Miller had promised £1000 on condition that the hospital site was not changed. That made £42,000, in addition to the original gift of £100,000 from the trustees of the Edward Wilson estate.

Ophthalmia in West Queensland

FROM the Brisbane *Courier* we learn that the report of Dr. W. F. Taylor regarding the prevalence of ophthalmia in the western districts of Queensland has just been published. Dr. Taylor's mission was to examine and report upon all cases of ophthalmia, especially among the State children in Charleville, Tambo, Blackall, Isisford, Longreach, Barcardine, Aramac, Muttaborra, Winton, Hughenden, and Richmond. A start was made from Brisbane on October 4th, and after journeying by train, coach and steamer to the various centres mentioned, Dr. Taylor returned to Brisbane on November 30th.

Dr. Taylor writes:—In all, I examined critically 1932 persons, and of these, 1740, or 90 per cent., were found to be more or less affected with unhealthy lids, the result of attacks of acute ophthalmia at some previous time or times; and 192, or 10 per cent., were found to be free from effects of eye disease. Of the 1740 more or less affected with the results of disease of the eye or eyelids, 385 are suffering to a greater or less extent from more or less permanent impairment of vision; and others will, no doubt, suffer from defective vision unless means are speedily taken to remedy the present condition of their eyelids. When examining the children, I instructed each child whose eyes or eyelids required immediate treatment to return on the following day accompanied by the mother or father; and I also sent a list of the names of those children requiring immediate treatment to the head teacher, so that he could notify one or other of the parents, through the children, to attend on the following day. This I did in response to a generally expressed wish on the part of the parents that they should be told what, if anything, was wrong with the children's eyes after being examined. As a rule, the attendance of one or other of the parents of the children was pretty general, when I re-examined each child, and pointed out to the parent present the condition of the eyes and eyelids, and urged the necessity for immediate treatment either at the hospital or elsewhere. I also pointed out any marked defect of vision from errors of refraction, and impressed upon the parents the necessity of having proper glasses supplied to the children without any unnecessary delay. This, however, the great majority will be unable to do from the want of means; and it is hardly to be expected that the resident doctor should be called upon to do refractions gratuitously, even if fully capable as a refractionist. Special provision should, I think, be made to meet these cases, as uncorrected errors of refraction are a fertile source of trouble to children attending school, and consequently obliged to use their eyes continuously for many hours during the day, as well as in learning their lessons in the evening.

With respect to the cause of all this eye trouble in the places I visited, I regret being unable to speak positively from personal experience, for not one case of acute ophthalmia came under my notice. I was informed that it was the wrong time of the year for acute cases, which became prevalent later on in the summer, especially after rain, when, as the grass grew, the flies multiplied and became such a nuisance that it was necessary to wear close-fitting veils of mosquito netting to insure any measure of relief from their attacks. The dryness of the air and the prevalence of dust storms cause irritation of the conjunctiva, leading in many cases to more or less hypertrophy of the papillæ of the palpebral portion, thus giving rise to so-called weak eyes, which are in a fitting condition to receive and cultivate any bacterial organisms that may come into

contact with them. In many cases no history of any previous attack of acute ophthalmia was obtainable, the mother asserting that the child never had blight or sore eyes, but always had weak eyes. Errors of refraction are often associated with this condition, which would be much mitigated in many instances, if not altogether removed, by wearing correcting glasses. In the acute cases of ophthalmia, or chronic cases taking on acute action, attended with discharge of pus from between the lids, flies are active carriers of contagion from the diseased eyes to the healthy ones. I am told that they settle in swarms on the discharge issuing from the affected eyes of the children, and on being disturbed fly off to other eyes, healthy or otherwise, and so one child in a school, affected with purulent discharge from one or both eyes, readily becomes a centre of infection to all the other children. The disease runs very much in families; cases in which all the children are infected, perhaps five or six or even more, together with the mother, are not uncommon. The father more often escapes, especially if his work takes him a good deal from home, but the mother and all the children, including the baby of a few months or even weeks old, become attacked.

The recommendations are summarised as follows:—
 (1.) That acute contagious ophthalmia be declared a contagious disease, and that the notification of all cases be made compulsory. (2.) That provision be made for the treatment of all cases of acute contagious ophthalmia on the spot, as far as practicable. (3.) That as many chronic cases be treated locally as are likely to be benefited by treatment. (4.) That all cases certified to by the resident doctor as requiring removal to the coast for treatment be so removed, if practicable. (5.) That the resident doctor be appointed to attend all cases of ophthalmia, and that he receive a salary for his services. (6.) That the head teacher of the State school be protected against loss of salary, in consequence of the falling off in the attendance of school children under the doctor's treatment. (7.) That a sanatorium be erected at some point on the shores of Moreton Bay, near Brisbane, for the reception and treatment of chronic eye cases unable to pay for private treatment. (8.) That a qualified ophthalmic surgeon be appointed for the Northern, Central and Southern districts of the State, to examine the refraction of the State and Convent school children's eyes, and to prescribe correcting glasses where required. (9.) That in places where the hospital is situated some distance from the town provision be made to treat chronic eye cases among the children attending as out-patients at the hospital at some central building in town. (10.) That provision be made at each hospital for the isolation and treatment of cases of acute contagious ophthalmia. (11.) That a trained nurse be appointed to take nursing charge of the cases of acute contagious ophthalmia admitted into each hospital. (12.) That the verandas and end windows of the State school and Convent school buildings be enclosed with wire gauze.

MEDICAL NOTES.

Care of Inebriates in Victoria.—Since his recent visit to the Inebriate Institution at Lara, the Chief Secretary (Sir Alexander Peacock) has been devoting attention to evolving a scheme for the treatment of habitual drunkards, who are not sent to Lara. The first difficulty in the way was the providing of a building for the purpose, but that will be overcome if the Cabinet approve of the Chief Secretary's scheme. He has intimated that as the Castlemaine Gaol had been practically closed he would recommend to the Cabinet that it be made available for the deten-

tion and treatment of persons who, by being thrice convicted of drunkenness, are classed as "habitual drunkards." They would be sent there for such terms as were deemed necessary for reformation, and dealt with as people suffering from the drink disease, and not as ordinary offenders against the law. In this way they would be saved from themselves and also from being a continual trouble to the public. Sir Alexander considers that the method he is to bring before the Cabinet is a practical way of dealing with the question, and at the same time it will put the Castlemaine Gaol to some reasonable use.

Medical Inspection of School Children in South Australia.—A system of medical inspection of children at public schools will shortly be undertaken by Dr. R. S. Rogers, who will report the result of his investigations to the Government. The appointment is not a permanent one, and the selection of an officer to carry on the work largely will depend on the nature of the facts brought to light. Dr. Rogers will first examine 1000 children from the urban, suburban, and country districts with the object of gaining information concerning their health and physique. In the first place Dr. Rogers will examine a number of pupils typical of those attending city schools, and later suburban children will receive attention. Country pupils from Wallaroo, Moonta, Port Augusta, Port Pirie, and other districts will be included in the investigation in due course.

The Precipitin Test in Criminal Cases.—We note that positive evidence of the human origin of bloodstains based on the results of the precipitin test has now been given in the course of two criminal investigations by Dr. R. J. Millard, Acting Microbiologist to the Department of Public Health of the Government of New South Wales. The first of these was the Baxter murder case; the accused was convicted and hanged last year. The requisite anti-sera were prepared by Dr. Millard when he first took up the position mentioned a year or more ago; and though supplies have since been furnished to three other States, the occasion mentioned appears to be the first on which the precipitin test has been applied to this practical use in the Commonwealth.

Charitable Bequests and Donations.—The committee of the Children's Hospital, Launceston, Tasmania, has received a donation of £39 from the Longford district committee towards the funds.

The medical men in Bendigo and suburbs have formed an association to be called the Bendigo Medical Society. Its principal object is scientific research. The Society, of which Dr. T. C. Ker is the hon. secretary, will hold meetings each alternate month, the board room at the hospital having been placed at the disposal of members.

The committee of the Melbourne Hospital are reorganising the work of its administrative staffs in the direction of economy and general efficiency, and have decided to appoint two registrars, one medical, the other surgical, whose duties will be to assist the medical superintendent. One of the registrars will act as superintendent if occasion may arise, and eventually succeed to his position if it should become vacant. The registrars will probably be chosen from the outgoing residents, and their salaries will be £100 per year and quarters.

Royal Sanitary Institute.—At a recent meeting of the Adelaide City Council, Alderman Baker asked various questions concerning the Royal Sanitary Institute, London. These were brought under the notice of the chairman of the local branch (Dr. T. Borthwick).

who forwarded the appended statement to the Adelaide City Council:—"The board of examiners for South Australia was appointed by the Council of the Royal Sanitary Institute, London. It is only a fair inference that the council was fully satisfied as to the competence of the members of the board of examiners to fill the position. An examination was held in Adelaide last June, at which 21 candidates appeared. Of these, 12 obtained the necessary percentage of marks, and were recommended by the board of examiners for the certificate of the institute. The examination was carried out in accordance with the regulations of the institute, and consisted of two written papers, supplemented by a *viva voce* examination. The questions and answers were forwarded to the secretary of the institute in London, to enable the institute to decide as to the relative value of the examination and the merit of the candidates. The regulations require this to be done, in order to maintain a uniform standard everywhere. In this instance the board of examiners were congratulated on the high standard of the examination. The certificates thus obtained by the successful candidates have the same value as those obtained in London or elsewhere, and their holders would have an equal chance for any appointment for which evidence of proper technical training is necessary."

The Battle of the Clubs in Victoria.—According to a statement in the *Age*, the four local doctors at Daylesford, Victoria, have notified the various friendly societies that they decline to attend, without an extra fee, any lodge patient who resides more than three miles from the centre of the town. Hitherto the distance has been five miles before an extra fee could be demanded by the physician. Much indignation has been expressed by lodge members, and steps are being taken to consider the advisability of inviting applications for two outside doctors at a salary of about £350 each per annum, with the right to private practice.

A Hospital Appeal to Women.—The Brisbane General Hospital committee is making an appeal to women for special donations to meet the present need for the re-roofing of the women's surgical and gynaecological wards, and for an additional room to be attached to the operating theatre for the purpose of administering anaesthetics. The women's wards were erected in 1885, and repairs to the roof are now imperative.

The annual Hospital Saturday collections were taken up in Sydney and suburbs on Saturday, May 2nd, when a total amount of £5868 15s 8d was collected. This is £800 more than last year.

Sydney Norland Institute.—The Sydney Norland Institute was opened last month by Miss Rawson. The institute, which is situated at the corner of Queen and Nelson streets, Woollahra, is the first of its kind established in Australia. Its objects are to provide a centre where educated women may obtain a training which will enable them to be self-supporting and render them more fit to discharge the duties of womanhood. Miss Rawson expressed her great pleasure in declaring the institute open. She felt sure that the beneficial results which would attend the objects aimed at would more than repay those who had worked so hard to initiate the movement. The training of a nursery nurse was a fitting finish to the education of the girls who were qualified for it. The objects of the institute were outlined at length by the founder (Mrs. Greig-Smith), and speeches were made by Hon. Dr. Mackellar, Dr. Clubbe, Dr. Binney, and Dr. Grace Boelke. The function closed with a vote of thanks to Miss Rawson.

PERSONAL ITEMS.

Dr. R. H. Todd, hon. secretary to the New South Wales Branch of the British Medical Association, was entertained at dinner on April 23rd by the members of the Sydney Amateur Orchestral Society, prior to his leaving on a trip to England.

Dr. C. Pelham Sapsford, who has been practising in the north of Queensland for the last nine months, has left for a trip to China.

Dr. Robert Walter Stewart, late of Port Pirie, S.A., has removed to Sydney, where he intends to practice as a specialist.

Dr. E. A. D'Ombrian, late of Casterton, Victoria, has removed to 205 Macquarie-street, Sydney (Ear, Nose, and Throat).

Dr. Nugent has succeeded to the late Dr. Cook's practice at Adelong, N.S.W.

Dr. Reginald Bowman, of Parramatta, N.S.W., has been appointed by the Minister of Lands to a position on the Parramatta Park Trust.

Dr. George Hurst, who has been a citizen of Bathurst, N.S.W., for the past 20 years, has left, and taken up his residence at Homebush, Sydney.

Dr. J. L. Shellshear has commenced practice at Taralba, N.S.W.

Dr. O. E. B. Withers has removed from Stanmore, Sydney, to Auburn, Sydney.

Dr. V. A. J. Smith has left Grafton, N.S.W., and gone to Whangarei, N.Z.

Dr. Ernest Culpin has left Kurri Kurri and has settled at Abermain, N.S.W.

Dr. Charles Ryan, of Melbourne, who has been officiating as medical officer to the railway department for the past five years, is in such indifferent health that he has felt compelled to notify the department that he will be unable to continue his attendance on the persons who were injured in the accident at Braybrook. He has left Melbourne on a visit to England and the Continent, and will probably be absent for six months.

Dr. G. A. Syme will act as medical officer to the railway department, Victoria, during the absence of Dr. Ryan.

Dr. O. Leitch, an honorary lecturer to the St. John Ambulance Association, who has just completed a series of lectures on first aid at Port Pirie, S.A., was at the conclusion of his last one presented by the class with a silver mounted pipe and tobacco pouch, in recognition of his services to the class. The class consisted of 26 members, and out of 19 who were qualified 17 presented themselves for examination, and 15 passed. Dr. Hampden Carr was the examiner.

Dr. Leonard John Dunstone, of Lamerook, S.A., has been appointed an officer of health under the Health Act.

Dr. Plummer and Dr. Griffiths have resigned their positions as resident medical officers at the Adelaide Hospital.

Dr. Ray, a resident medical officer, and a graduate of the Adelaide University, and winner of the Rhodes Scholarship, has resigned his position in the Adelaide Hospital to enable him to proceed to England; and has been succeeded in the hospital by Dr. Mortimer D. Nesbit.

Dr. Laurie, who has been health officer to the Shire of Wyndham, Victoria, for some years, has resigned the position because he is about to leave the district. Dr. Manly has been appointed acting health officer in his stead.

Dr. J. B. Gunson, of Adelaide, on the eve of his marriage, was presented by the members of the South Australian Branch of the British Medical Association with a massive silver tray, suitably inscribed. The president made an appropriate speech on the occasion of handing the presentation to Dr. Gunson.

Dr. Harvey Suttor, the 1907 Victorian Rhodes Scholar, has been awarded the degree of B.Sc. at Oxford for a thesis on "Heat Apoplexy."

Dr. G. C. Mathieson has been appointed Demonstrator of Physiology in the medical school at St. Mary's Hospital, London.

Dr. Penny, of Gould's Country, Tasmania, when driving a pair of ponies, met with an accident recently. The ponies (took fright and bolted, with the result that the doctor was thrown out of the trap, and received some bruises and a severe shaking.

W. Spalding Laurie, M.D., B.S., has commenced practice at Hampton, Victoria.

Dr. Hughston is leaving Hamilton, Victoria, and has resigned his position as medical officer to the Friendly Societies' Union. Dr. E. N. Scott succeeds to the practice.

Dr. W. B. Dight has removed from Campbelltown, N.S.W., and commenced practice at Scone, N.S.W.

Dr. J. A. Maginnis committed suicide by taking an overdose of chloral at the Great Northern Hotel, Newcastle, on April 16th. In a letter to the coroner deceased stated that owing to financial losses through mining transactions and failing health, he had determined to commit suicide.

Dr. Paton has resigned his appointment on the resident medical staff of the Brisbane General Hospital.

Dr. T. C. Parkinson, M.B., Ch.M. (Syd.), late resident pathologist at the Royal Prince Alfred Hospital, Sydney, has been awarded the James King of Irrawang Travelling Scholarship, and proceeded to England as surgeon on the Orient mail steamer "Omrah."

Dr. Frank Tidswell, Microbiologist in the Department of Public Health, Sydney, has been temporarily transferred to the Department of Lands, to carry on an investigation in relation to the cultivation of the local virus of a disease amongst rabbits, and to test its value when utilised in a virulent form for the destruction of rabbits in New South Wales.

At the annual commemoration of the University of Sydney, on May 2nd, the degree of Doctor of Medicine was conferred on Dr. H. J. W. Brennand, of Neutral Bay, the subject of his thesis being "Necrosis, Gangrene, and Putrefaction."

Dr. Gordon MacLeod has been promoted to the post of hon. ophthalmic surgeon to the Sydney Hospital, rendered vacant by the retirement of Dr. Odillo Maher.

WARNING NOTICE.

INTENDING applicants to any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

The annual dinner of the University of Sydney Medical Society will be held at the A.B.C. Rooms, Pitt-street, Sydney, on Saturday, June 27th.

MEDICAL APPOINTMENTS.

VICTORIA.

The following Resident Medical Officers have been appointed to the Melbourne Hospital for the ensuing eleven months:—

J. G. V. Shelton, C. V. Stephens, A. J. Trinca, J. J. McMahon, W. E. Wilson, H. J. Gray, R. M. Downs, Maude Dodgson, and C. G. Shaw.

The following persons to be Public Vaccinators for the districts set opposite their names, respectively, viz.:—

Legge, Frank Robert, M.B., for North-Western District, vice Henry St. John Mitchell, L.R.C.P., resigned.

Lyons, Martin M., M.B., for South-Western District, during the absence of Gerald Haydon, L.S.A., on leave.

O'Connor, William L., M.B., for North-Eastern District, vice William Kilpatrick, M.B., resigned.

O'Connor, William Lawrence, M.B., to be Health Officer for the Shire of Omeo.

NEW SOUTH WALES.

Binney, E. H., M.B., Ch.M., to be Hon. Assistant Surgeon to the Sydney Hospital.

Withers, O. E. Bruce, to be Medical Superintendent of the Granville Cottage Hospital, Auburn.

Waugh, R. A. Phipps, to be Hon. Medical Officer of the Granville Cottage Hospital, Auburn.

Cobb, John Frederick, M.R.C.S., as an Acting Government Medical Officer, for the purposes of the "Invalidity and Accidents Pensions Act."

Maw, Henry Solomon, L.S.A., as an Acting Government Medical Officer, for the purposes of the "Invalidity and Accidents Pensions Act."

Newton, William Thomas Joseph, M.B., to be Government Medical Officer and Vaccinator at Katoomba, vice John Spark, resigned.

Cameron, Donald, M.B., M.S., to be Government Medical Officer and Vaccinator at Germanton, vice H. B. Wilson, left the district.

QUEENSLAND.

The following appointments have been made to the Brisbane Hospital Staff:—Hon. Consultants, the Hons. C. F. Marks and F. E. Hare; honorary visiting surgeons, Drs. Thomson, Jackson, and Hopkins; honorary visiting physicians, Drs. Hirschfeld, Webb, and Page; honorary surgeon in charge of eye, ear, nose, and throat, the Hon. W. F. Taylor; honorary gynaecologist, Dr. F. G. Connolly; honorary radiographer, Dr. A. A. Doyle; honorary pathologist, Dr. Jack Thomson; honorary assistant surgeons, Drs. Meek, Salter and Morgan; honorary assistant physicians, Drs. Jack Thomson and Herbert Stewart; honorary assistant surgeon in charge of eye, ear, nose and throat, Dr. Robert Thompson; honorary assistant gynaecologist, Dr. A. H. Marks; honorary medical officer, Convalescent Home, Dr. Davidson.

Oborn, H. W., to be Acting Medical Superintendent of the Dunwich Benevolent Asylum, acting Medical Officer of the Lazaret, and Acting Superintendent of the Institution for Inebriates at Dunwich, during the absence on leave of Dr. Row.

SOUTH AUSTRALIA.

The following persons to be Public Vaccinators for the district set opposite their names, viz.:—

Griffiths, Ernest William, M.B., B.S., of Mannum, and Ambrose Redman, of Point Macleay.

The following appointments have been made to the Adelaide Hospital Staff:—R. S. Rogers, physician; A. M. Cudmore, surgeon; A. W. Hill, ophthalmic surgeon; and F. W. A. Magarey, assistant surgeon.

Wilson, H. C., to be Resident Medical Officer.

Dunstone, Leonard John, M.B., B.S., of Lameroo, to be an Officer of Health.

TASMANIA.

Jones, Dr., to be Health Officer for Oatlands.

Campbell, Maud, M.B., Ch.M., to be Junior House Surgeon to the Launceston General Hospital, vice Dr. Sweetman, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

NEW SOUTH WALES.

Beckett, Arthur Denison, M.B., B.S., 1901 (Melb).

Stewart, Robert Walker, L.R.C.P. (Edin.), 1873; M.R.C.S. (Eng.), 1874.

White, Edward Rowden, M.B., B.S. (Melb.), 1907.

TASMANIA.

Campbell, Sarah Maud, M.B. (Melb.) 1907, Ch.B. (Melb.) 1907.
McCauleland, Samuel Ross, L.R.C.P. (Irel.), 1901, L.R.C.S. (Irel.), 1901.

VICTORIA.

Fankhauser, Herbert William, M.B., Ch.B. (Melb.), 1904.
Hicks, John Henry Clemens, L.R.C.P.S. (Edin.), 1898.
O'Brien, Richard Alfred, M.B., Ch.B. (Melb.), 1902.
Young, David, M.B., Ch.M. (Glas.), 1877.

BIRTHS, MARRIAGE, AND DEATHS

BIRTHS.

BENNET.—May 7th, 1908, at her residence, "Dunsinane," Ocean-street, Woolahra, Sydney, the wife of F. A. Bennet, M.D.—a daughter.
CLIFFORD.—April 21st, at her parents' residence, "Iona," Fenkivil-street, Bondi, Sydney, the wife of Dr. Percy Clifford—a son (stillborn).
KEENAN.—At Nurse Healey's Private Hospital, 95 Henrietta-street, Waverley, Sydney, the wife of Dr. Alfred Keenan, a daughter.
SALTER.—March 8th, 1908, at Hawthorn, Homebush, Sydney, to Dr. and Mrs. Salter—a son.

MARRIAGE.

WADDELL-WHITE.—February 14th, at St. Andrew's Church, Watford, Herts, England, by the Rev. F. Hunt, Arthur Robert Waddell, M.D., of The Hermitage, Potter's Bar, Middlesex, to Helena Henrietta, fourth daughter of the late H. C. White, of Havilah, Mudgee, N.S.W.

DEATHS.

BROADBRIDGE.—April 20th, 1908, at Darlinghurst, Sydney, James Broadbridge, M.D., of North Sydney, aged 42 years.
COOK.—April 12th, at Adelong, N.S.W., Harry Franklyn Cook, M.R.C.S., late of Redhill, in his 39th year.
COOLEY.—April 27th, 1908, at his late residence, Beulah, Bank-street, Botany, Sydney, William Henry, dearly beloved and only son of Dr. and Mrs. Alfred G. Cooley, aged ten months.
COUPER-JOHNSTON.—April 17th, 1908, James Couper-Johnston, M.D., Medical Superintendent, Quarantine Station, Portsea, Victoria, in his 64th year.
HOETS.—May 7th, 1908, at Oban, 27 Boyce-street, Sydney, Alton Kingsley, M.R.C.S.E., L.S.A. (Lond.), aged 52 years. Late of Burrows, Yass, and the Clarence River, N.S.W.
HORNE.—May 5th, 1908, at Loy Yang, Herbert E. Horne, L.R.C.P., L.R.C.S., etc., of Traralgon, son of the late George Horne, of Launceston, aged 41.
WICKENS.—April 13th, 1908, at her residence, 185 Lygon-st., Carlton, Victoria, Agnes Montgomery, beloved wife of George F. Wickens, M.B., Ch.M.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BOOKS RECEIVED.

Essentials of Surgery: An Outline of Surgical Pathology, Diagnosis and Treatment. By Alwyne T. Compton, F.R.C.S. Illustrated. Price, 4s net. London: Hy. Kempton, 13 Fumival-street, Holborn, E.C. 1908.
The Medical Annual for 1908. Bristol: J. Wright & Co. Price, 3s 6d.
Syphilia: A Treatise for Practitioners. By E. L. Keyes, jun., M.D., P.D. With 69 illustrations, 9 plates, 7 coloured. Price, 21s. New York and London: D. Appleton & Co. Sydney: Angus & Robertson.
Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. VII. Serün—Physiology. Edinburgh and London: William Green & Sons.

The Pocket Osteology. By Philip Turner, B.Sc., M.B., M.S., F.R.C.S. Price, 3s net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

The following four volumes have been received from Messrs. W. B. Saunders & Co., Philadelphia, per Mr. Jas. Little, Melbourne.
1. A Text-book of the Diseases of the Nose and Throat. By D. B. Kyle, M.D. Fourth edition, octavo volume of 725 pages, with 215 illustrations, 28 in colours. Price, 17s.
2. Atlas and Text-book of Human Anatomy. Vol. III. completing the work. By Prof. J. Sobotta, of Würzburg. Edited with additions by J. Playfair McMurrich, Ph.D. Quarto of 842 pages, with 297 illustrations mostly in colours. Price, 25s.
3. Diseases of the Heart. By Prof. Th. von Turgensen, Prof. L. Krehl and Prof. Dr. L. von Schrötter. Edited with additions by G. Dock, M.D. Octavo of 848 pages, illustrated. Price, 21s.
4. Surgery: Its Principles and Practice. Vol. III. By 66 eminent surgeons. Edited by W. W. Keen, M.D., Hon. F.R.C.S. (Eng. and Edin.). Octavo of 1132 pages, with 562 text illustrations and 10 coloured plates. Price, 30s.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Messrs. Knoll & Co., Ludwigshafen, Germany; Mr. L. Bruck, Sydney; Messrs. Baillière, Tindall & Cox, London; Messrs. Scott & Bowne, Sydney; Mr. D. A. Greenlees, Sydney; The Ratin Bacteriological Laboratory, London; The Denver Chemical Mfg. Co., New York; Dr. C. H. E. Lawes, Sydney; Messrs. H. A. Rose & Co., Sydney; Messrs. Potter & Birka, Ltd., Sydney; Dr. E. H. M. Stephen, Sydney; Mr. G. T. Taylor, Hobart; Reuter's Telegram Co., Melbourne; Mr. J. P. McDonald, Brisbane; Dr. MacBain Ross, Broken Hill; Dr. W. J. S. Mackay, Sydney; Dr. E. A. Martin, Perth, W.A.; Messrs. Muir & Neil, Sydney; The Australian Milk Ferment Proprietary, Sydney; Dr. Sinclair Gillies, Sydney; Dr. H. G. Chapman, Sydney; South British Insurance Co., Ltd., Sydney; Messrs. Comill & Co., Sydney; Messrs. Denyer Bros., Sydney; Messrs. Dalgety & Co., Sydney; Messrs. Burroughs, Wellcome & Co., Sydney; Dr. Fournes Barlington, Sydney; Felton, Grimwade & Co., Melbourne; Messrs. Angus & Robertson, Sydney; The Secretary the Royal Society of Medicine, London; Dr. W. G. Armstrong, Sydney; Dr. F. Antill Pockley, Sydney; Dr. Litchfield, Sydney; Dr. H. C. Hinder, Sydney; Dr. H. S. Newland, Adelaide; Dr. A. B. Brockway, Brisbane; Prof. Welsh, Sydney; Dr. J. B. Gunson, Adelaide; Dr. T. K. Hamilton, Adelaide; Dr. E. S. Stokes, Sydney; Dr. C. E. Thorp, Perth; Dr. Reissmann, Adelaide; Dr. Hy. Laurie, Melbourne; The Secretary A.M.P. Society, Sydney; Dr. Macintyre Sinclair, Wentworth Falls, N.S.W.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerol Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

Kalyra Sanatorium

(ILLUSTRATING DR. REISSMANN'S ARTICLE, P. 269.)



ROAD-MAKING BY PATIENTS



GRADUATED EXERCISE—PATIENTS PICKING IRONSTONE

Kalyra Sanatorium

(ILLUSTRATING DR. REISSMANN'S ARTICLE, P. 269.)



REST AFTER EXERCISE—THE SUMMER MIA-MIA



PATIENT'S BEDROOM, SHOWING OPEN FRONT

Kalyra Sanatorium

(ILLUSTRATING DR. REISSMANN'S ARTICLE, P. 269.)



GRADUATED EXERCISE—THE ZIG-ZAG PATH



GRADUATED EXERCISE—PATIENTS CARRYING IRONSTONE

Kalyra Sanatorium

(ILLUSTRATING DR. REISSMANN'S ARTICLE, P. 269.)



LADIES' QUARTERS



SOME OF THE COWS

AUSTRALASIAN MEDICAL GAZETTE

No. 321.

SYDNEY, JUNE 20TH, 1908.

Vol. XXVII., No. 6.

INTRODUCTION TO A DISCUSSION UPON THE PRESENT-DAY VIEWS OF THE NATURE OF TUBERCULOSIS AND ITS TREATMENT BY THE PHYSICIAN.

By G. Reissmann, M.A., M.D., B.C. (Camb.), B.Sc., M.R.C.P. (Lond.), Physician to the Kalyra Sanatorium and Assistant Physician to the Adelaide Hospital.

WRITERS of books usually introduce their subject with a short and succinct preamble called the introduction. It is sometimes a purview of the work which follows. The chief interest of the reader will be in the book itself and not in the introduction, which, indeed, from its relative unimportance, he may be willing to pass over unread.

To-night mine is the lesser duty of providing an introduction; but the principal task, that of furnishing the volume of discussion, belongs to you, and I beg that you will make it as large as the subject merits.

As, of course, you will not merely discuss my introductory remarks, but any part of the subject which may be illumined and made more clear by an exchange of opinion, I may safely confine these remarks to some few hypotheses, theories and facts which, because they are more or less new or because they appear to me to be important, figure most prominently in my mind.

When viewed under the magnifying influence of the microscope the tubercle bacillus, that insignificant particle, which, despite its diminutive size, nevertheless causes mankind so much misery, does not always present the same appearance. The sputum of some patients contains bacilli which are extremely short, while that of others contain bacilli which are remarkably long. Sometimes the germs are granular, sometimes they are curved.

From an examination of the sputum of many patients I have acquired the notion that the length of the germ is related to its degree of virulence. This matter is worthy of further investigation; it may prove useful material for making a prognosis.

But whether short or long, curved or straight, the bacillus most commonly found in human tubercular sputum belongs to a

definite species. At least two other species are known. There is the species found in cattle and there is the species found in birds.

The character of the avian bacillus is so distinct that in the early days before this difference was properly understood it led to a misunderstanding between German and French observers. Metchnikoff grew bacilli at 43.6°, whereas Koch found that all growth was inhibited at a temperature above 42°. When it was discovered that the French observers were working with bacilli obtained from a pheasant, whereas the Germans used bacilli from a human source, the cause of the difference became apparent.

The bovine bacillus is also recognised by definite morphological and cultural differences.

Now it is important for us to have a definite opinion whether the bovine bacillus and the avian bacillus are capable of causing disease in man.

Up to the present time no one has succeeded in converting the human bacillus into the avian bacillus, although numerous experimental inoculations have been made in birds.

I know of no conclusive experiment or observation which prove that man can contract tuberculosis from birds.

The extensive experiments that have been carried out support the hypothesis that the avian and human bacilli are separate micro-organisms. It is possible, however, that they have arisen from a single proximal source and have acquired their distinctive character by transmission through different classes of animals.

Therefore, although tuberculosis is common among domesticated birds, man appears to be incapable of contracting consumption from them. Yet these germs are cousin to the deadly human tubercle bacillus, and I think that all efforts to destroy them and the animals that harbour them are deserving of praise.

Of much greater importance than the inactivity of avian tuberculosis is the problem whether tubercle germs of bovine origin are capable of causing disease in man.

Koch's bold conjecture that bovine tuberculosis cannot be transmitted to man has stimulated a large amount of enquiry, none

of which was superfluous, and has led in England to a very general opinion hostile to Koch's view.

In their report last year the Royal Commissioners appointed by the British Crown stated their conviction that in a certain number of cases tuberculosis occurring in man, especially in childhood, is caused by the bacillus of bovine tuberculosis, and that infected cow's milk is the most common germ carrier. They are emphatic in their statement that cow's milk containing bovine tubercle bacilli is a cause of fatal tuberculosis in man. More than this, they believe that the bovine bacillus is convertible into the bacillus of the human type, and that tubercular lesions in man which contain bacilli of the human type may have had their origin in a bovine infection.

The report of the English Royal Commissioners is, I think, more reasonable than the extreme view which is taken by Behring, who in effect teaches that the seeds of consumption are sown in infancy and the harvest is gathered in adult life. "Consumption in the adult is not the result of a primary infection of the lung arising from the inhalation of germs, but is the later stage of a disease contracted in the cradle, a disease infecting the lymphatic vessels and the blood. If we are to stamp out consumption, then the first step is to guard against the entrance of tubercle bacilli into the mouth of the child." This is a strange hypothesis. We are to believe that the man who apparently has lived a vigorous life, but who at the age of 70 begins to exhibit signs of consumption, actually contracted the disease when as an infant he was fed on milk containing bovine tubercle bacilli. The hypothesis must be accepted as possibly true until proved to be false. Calmette refuted it when he demonstrated that animals contract tuberculosis via the intestinal tract, not only when young but at all ages; but whilst in adults infection becomes immediately localised in the lungs, it remains in young animals for a longer or shorter period confined to the mesenteric glands. Pulmonary lesions are also frequently found in adult bovines, whereas in young bovines mesenteric lesions only appear.

Nathan Raw, whose numerous experiments have extended over many years, deserves credit for having long ago published the opinion that the human body is invaded by two varieties of the tubercle bacillus and that one of them produces phthisis pulmonum and

usually attacks adults, while the other, the bovine bacillus, usually attacks children during the milk drinking period. He has called attention to the fact that in countries where there are no tuberculous cattle or where milk is not drunk by children the surgical forms of tuberculosis are absent, while pulmonary tuberculosis is as common as elsewhere.

There is a difference in the behaviours of the human and the bovine bacillus when swallowed. The human bacillus will cause intestinal ulceration, and passing on to the mesenteric glands it will ultimately reach the lungs, whereas the bovine bacillus will pass through the intestine to the glands and lungs without causing any visible lesion in the intestine itself.

So far from believing, as Behring believes, that bovine tuberculosis in children is the proximal cause of pulmonary tuberculosis in the adult, Nathan Raw asserts that a mild bovine infection confers a certain degree of immunity against pulmonary tuberculosis in the same way that vaccinia protects against smallpox, and he claims to have had considerable success in the treatment of pulmonary tuberculosis by the use of a vaccine prepared from bovine tubercle bacilli. This treatment is worthy of a thorough trial. It is generally believed that people who suffer from tubercular glands are not very liable to suffer from pulmonary tuberculosis. I am unable to subscribe to this belief, for I have seen many patients with pulmonary tuberculosis who previously have had and still have tubercular glands in the neck.

I have quoted the views of a few eminent workers only, but the problem of the infectivity of bovine tuberculosis is being widely debated. From what I have said it is apparent that the whole matter is still in the crucible, where the heat of discussion tempered by the cold logic of the master mind converts ideas into theories and theories into truths. Thus far, if I discern aright, two theories have taken definite shape and are likely to crystallise into truths—firstly, that tuberculosis including consumption can be contracted by living germs being taken into the mouth and swallowed; and secondly, that man is susceptible to infection with tubercle germs of bovine origin.

There are four paths of infection by which the tubercle bacillus may enter the human body. These are (1) the respiratory tract, (2) the alimentary tract, (3) the vascular and

lymphatic system, and (4) the reproductive system.

The theory that pulmonary tuberculosis is caused by the inspiration of air carrying tubercle bacilli is due to Cornil. He proved that the dust of insanitary rooms occupied by phthisical people contains tubercle bacilli, and that when guinea-pigs are made to inhale this dust they contract pulmonary tuberculosis. So widely has this theory been accepted, and so often has it been retold, that it has now obtained the importance of a fixed principle or a dogma.

But evidence is now accumulating which tends to prove that the respiratory tract is neither the sole nor even the most common path of infection. I will, however, grant that it is one of the usual paths of infection. In persons working with tubercle bacilli in the laboratory, living germs have been detected in the secretion of the nasal mucous membrane. Why, then, do not these workers contract consumption? Because they are protected by the natural bactericidal property which the healthy nasal mucous membrane has been proved to possess. Now, whenever the nasal mucous membrane is unhealthy or diseased this bactericidal property is diminished or lost. This is not a theory, but an observed fact. It is for this reason that persons suffering from catarrh or other disease of the respiratory tract are more than ordinarily liable to contract consumption. No person suffering from a cold or cough should be allowed to nurse a consumptive patient.

How do germs in the nose, mouth, or nasopharynx travel to the lung? To answer this question I must first remind you of the lymphatic supply of the lung. There is a superficial lymphatic plexus beneath the visceral pleura and a deep lymphatic plexus surrounding the pulmonary vessels, bronchioles and alveoli. At the root of the lung branches of the superficial plexus join those of the deep plexus, which then enter the bronchial glands. These bronchial glands are situated at the bifurcation of the trachea and upon the first main divisions of the bronchi.

During the act of inspiration there will be a dilatation of the lymphatic vessels beneath the pleura and also of the lymphatics surrounding the more superficially placed aveoli. Lymph will flow towards these distant parts from the glands at the root of the lungs. Upon the surface of the lung are placed a number of stomata through which the subpleural and

interalveolar lymphatics communicate with the pleural cavity itself. During inspiration, therefore, a tendency exists for lymph derived from the bronchial glands to pass into the pleural cavity. And if tubercle bacilli are present in the bronchial glands they will find their way into the superficial alveoli and into the pleural cavity. It is a noteworthy fact that in a great number of cases pulmonary tuberculosis actually does begin with an attack of pleurisy.

But, it may be asked, how do tubercle bacilli reach the glands at the root of the lung? Anatomy supplies the answer. These glands are in direct communication with the lymphatics of the trachea and oesophagus on the one hand, and with the lymphatic of the mesentery and of the abdomen generally on the other.

Tubercle bacilli from the mouth, nasopharynx or trachea may, therefore, and actually do, reach the glands at the root of the lung, and they may thence invade the lung itself. In the same way bacilli from the abdominal lymphatics will reach the glands at the root of the lung and thence travel to the lung. Which path is most frequently taken is not known with certainty, but it is highly probable that the abdominal route is taken more frequently than has hitherto been supposed. Illustrating this fact, Calmette has fed kids with tubercle bacilli. He introduced the germs into the stomach by means of an oesophageal bougie. The animals developed both abdominal and pulmonary tuberculosis. A healthy goat that gave no reaction with tuberculin was fed with tubercle bacilli given through an oesophageal bougie. After 65 days the animal was examined. There were no ulcers in the intestine, nor were any macroscopical changes found in the abdomen. Some small tubercles only were found in the mesenteric glands. Nevertheless the lungs were found packed with tubercles in every stage of development, and they contained large cavities full of pus.

This experiment appears to prove the possibility that pulmonary tuberculosis may arise by germs reaching the lung via the intestine. I presume that so careful an observer as Calmette took the precaution to remove the excreta of the animal before they dried. For if these were dried the bacilli which they probably contained might conceivably have been inhaled.

I myself have seen at least one case of extensive pulmonary tuberculosis with

numerous large tubercular glands in the abdomen in which a very careful search failed to discover any ulceration or scarring of the intestinal mucosa.

The possibility of tubercular infection arising through the digestive tract is of practical importance, as I will show when speaking of the prevention of contagion.

The discovery of the tubercle bacillus is, and will always be, the most certain proof of the existence of tuberculosis. The examination of tubercular sputum is too often neglected. I think that the majority of the patients recommended for admission to the Kalyra Sanatorium have not had the sputum microscopically examined.

It often happens in a suspected case that no sputum is obtainable for examination, or that the examination fails to reveal any bacilli. There is need for other tests, such as the subcutaneous injection of minute doses of tuberculin. As you are aware, this test is widely and successfully used in cattle. It has also been severely tested in man. At the Claybury Asylum Dr. Mott injected 55 patients with tuberculin. Forty-five of these patients gave a definitely positive reaction indicating that they were suffering from tuberculosis. Thirty-four of these positive cases have died, and a post-mortem was made on 29 of them; they all showed evidence of tuberculosis. Of the patients who did not react with tuberculin five have died, and at the post-mortem no tubercular lesions were found.

The reliability of the test is therefore established, but I doubt whether its application is advisable or even justifiable. Since I have personally observed the severe reaction and the extension of disease which sometimes follows the inoculation my enthusiasm for it has been completely extinguished.

Calmette's reaction, which is now on its trial, appears to be attended with less danger. The test is as follows:—One drop of a 1 per cent. solution of tuberculin O. in 3 per cent. boric acid is instilled into the conjunctival sack of the patient. If he is suffering from any form of tuberculosis a reaction will be observed in five to seven hours, reaching its maximum in about 24 hours and then slowly disappearing. It consists in a redness and chemosis of the conjunctiva, caruncle, and plica semi-lunaris and the secretion of a small quantity of muco-pus.

If the patient is not suffering from tuberculosis no reaction follows, or at most there appears a slight conjunctival reddening, which

in my experience often begins only in about 24 hours. Using a vaccine prepared by myself I have tried the test upon over 100 cases, and I have found it sufficiently reliable to be of assistance in arriving at a diagnosis.

Calmette's test has this to commend it: if not used upon eyes that have been diseased it is free from danger, and the little experiment requires neither apparatus nor special skill. For the latter reason I hope it will be found that the test is applicable for the diagnosis of tuberculosis in cattle. If so it will have a wide sphere of usefulness.

The inspector of cattle in Adelaide, Mr. McEachern, has tested five cows with the vaccine prepared by me. Three of these reacted, and when slaughtered two of them showed advanced tubercular disease, and one had a tubercular bronchial gland. Two of the cattle gave no reaction, and they appeared healthy.

The diagnosis of disease of the chest is sometimes made easier by the use of Röntgen Rays. The X-rays will confirm or correct an opinion already formed by the usual physical examination, and they will sometimes reveal new facts. During the last five years I have examined several hundreds of cases of chest diseases with the X-rays, and I am convinced of their usefulness.

It is unfortunate that just in those cases where help is most needed the X-rays are least useful. They have not assisted me to diagnose suspected early cases of pulmonary tuberculosis. The relative immobility of one wing of the diaphragm and the deficient illumination of one apex are facts which may be observed, but I have always been able to predict these signs before using the screen; they have not come as a surprise. Once I recognised by the X-rays and subsequently confirmed that a patient whom I had suspected of phthisis was in fact suffering from a small hydatid deeply placed in the lung. The shadow upon the screen produced the impression on the mind that a solid ball existed in the substance of the lung.

Pleural effusion, empyema and pneumothorax give characteristic screen shadows, but these conditions can be recognised without the help of the X-rays.

It is my opinion that the X-rays, though useful and occasionally valuable, are rarely indispensable in the examination of the chest, and an X-ray examination should not be made until one has formed a definite opinion by the ordinary diagnostic method.

The microscopical examination of the sediment from a centrifugalised pleural effusion sometimes helps the diagnosis of tubercular disease. The fact that the majority of cases of pleurisy with effusion are tubercular does not help one to decide whether an individual patient who has a pleural effusion is tubercular or not. He might belong to the minority. But if the leucocytes in the centrifugalised fluid contain a preponderating number of lymphocytes, the case is almost certainly one of tubercular pleurisy. So, too, in cases of meningitis a preponderating number of lymphocytes in the cerebro-spinal fluid is characteristic of tubercular disease provided that syphilitic meningo-encephalitis can be excluded.

In making the films it is important to centrifugalise the fluid steadily and not too quickly, and to make the examination within a few hours after tapping. I have had some experience of the method and I have found it useful. It is one of the links in the chain of evidence.

The destruction of tubercular sputum is the first and most important measure for the prevention of consumption. Is it always properly carried out? Are not we apt to forget that there is a time factor in the action of antiseptics? A 1 in 20 solution of carbolic acid takes 30 hours to kill tubercle bacilli, and if these are contained in nummular sputum they may altogether escape destruction. Elliott treated nummular sputum for 24 hours with 1 in 500 perchloride of mercury and with 1 in 20 carbolic acid. He then injected the central portions into guinea-pigs. All the animals contracted tuberculosis and died.

The same experimenter boiled nummular sputum for ten minutes and then injected the central portion into guinea-pigs. The result was the same; all the animals died from tuberculosis. There could be no better illustration of the great vitality of the tubercle bacillus, and it impresses one with the futility of antiseptic inhalations, which are sometimes advocated for the cure of consumption.

I recommend every patient to use a mug or sputum flask partially filled with a strong solution of bicarbonate of soda. The soda dissolves the mucus and penetrates the sputum. At the end of the day the sputum is mixed with sawdust, incinerated and burned, and the flask is boiled in soda solution, the boiling point of which is higher than that of water.

At Kalyra and at North Terrace a special furnace is used, devised by myself. In it the

sputum is first dried and incinerated and then burned.

Probably no country in the world is better equipped for fighting tuberculosis than South Australia. But good equipment is not the only thing necessary for success. We have compulsory notification, but there is reason to believe that this is frequently evaded. Notification is useless unless it is followed by efficient inspection and by the punishment of those who spread or who allow the risk of spreading infection. In many cases the patient and his friends, under the direction of their medical adviser, take every precaution intelligently and honestly to prevent infection, and then notification is less necessary; in fact, it sometimes becomes a hardship, because notification nearly always leads to publicity. I prefer voluntary notification, at the discretion of the medical adviser.

Some consumptives are harmless; but I know of others who, because of their criminal carelessness, are positively dangerous. Surely the law should compel the removal of a chronic consumptive who insists upon occupying the same bed with her husband and several children!

There is a custom among consumptives, allowed, I fear, by some of us, which is not only bad, but in my opinion altogether dirty and dangerous. It is the habit of spitting into bits of rag. These rags are fondled by the patient during the greater part of the day, and sometimes tucked beneath the pillow. If living bacilli were as brightly coloured as are the specimens stained for the microscope, I believe the appearance of some of these rags and the beds, too, would be startling. I once estimated that the total length of the bacilli of one of my patients in one day's sputum probably exceeded five miles; he expectorated anywhere, and could not be persuaded to take any precaution.

A consumptive should always expectorate into a vessel provided with a lid. The lid is essential for this reason. A fly having been in contact with tubercular sputum for a few minutes was made to walk upon agar. The agar was washed with bouillon and the bouillon subsequently injected into a guinea-pig. The guinea-pig died from tuberculosis in 36 days. Flies, then, may carry infection, and therefore sputum mugs must always be closed with a clean lid.

Now, there is another precaution which should be taken, but which is not often taken. Let me persuade you to recommend this precaution in practice. Teach your

patients to keep their hands clean. Allow no consumptive to touch a soiled handkerchief or soiled rag. If he does he will contaminate everything else he touches, including the friend whose hand he shakes.

The patient must not use ordinary handkerchiefs; in place of them he carries in a box or in a pocket provided with a washable lining a packet of pieces of Japanese paper* or of cotton material. Whenever he wishes to wipe his mouth or blow his nose he uses a clean piece of paper or cotton material, taking care not to soil his fingers. The paper is never used more than once, and it is immediately transferred to a metal box which he carries with him in another pocket. A cigarette tin will serve the purpose; the contents are burned in the evening and the box itself boiled. The reason why the patient and those attending upon him should always have clean hands is more apparent when it is remembered that tuberculosis can be contracted *via* the intestinal tract. I think that the same precautions should be taken as with patients suffering from typhoid fever. Consumptive men should be clean shaven.

I have little to say on the well-worn subject of treatment. The opsonic treatment is difficult, laborious, and, where consumptives are concerned, I am sorry to add, disappointing. I have tried it patiently for several months, and I could rarely ascribe to it any greater benefit than the patients were already deriving from sanatorium treatment. In one case repeated observations of the opsonic index failed to warn me that the injection of a small dose of tuberculin would do harm, yet harm did follow. If tuberculin is to be used in cases of consumption, I think a careful physical examination of the patient will give more information of its probable effect than the estimation of the opsonic index. Patients often think they feel better after injections of tuberculin R., and perhaps the vaccine does some good. In cases of surgical tuberculosis the opsonic treatment appears to be of much greater value than in pulmonary tuberculosis. But even in surgical cases my experience has not been very encouraging.

For consumptives no treatment as yet has been devised which is more successful than that carried out at sanatoriums.

It has stood the test of time, and will probably never be superseded. The open-air treatment has been practised more or less continuously for over 40 centuries. Hippo-

crates, Aretæus, Pliny, Galen, Willis, Laennec and Brehemer—men famous in the history of medicine—have been its chief advocates. Quite recently some sanatoriums have modified their treatment and have replaced prolonged rest on lounges by a system of graduated labour. This change was first advocated by Dr. Paterson at the Frimley Sanatorium in England. At Kalyra many of our patients are hard at work with pick and shovel breaking up ironstone and making roads, while others carry baskets of earth. Some chop or saw wood, others again gather fowls' eggs or take more or less extended walks on level ground or up hill. Exercise and work are carefully graduated, and a patient is always tested with light work before he is given anything more laborious. No patient is allowed to take exercise if his temperature rises above 99°. The success of this system of labour at Kalyra is in a very large measure due to the efforts of my late house physician, Dr. Lewis, to whom I am much indebted.

The sanatorium loafer to whom Dr. Hamilton objected so much last year is not to be found with us to-day. The tone of the sanatorium is more cheerful. There is a healthy, happy spirit among the patients very different from that existing when the rest cure was thought the only safe cure. I am convinced that our patients are the better for the work they do, and are more fit to resume their ordinary occupations when they leave us.

(Read before the South Australian Branch of the British Medical Association.)

IMPACTED SHOULDER—TONIC CONTRACTION OF THE UTERUS—REMOVAL OF UTERUS AND CONTENTS BY PAN-HYSTERECTOMY

By Ralph Worrall, M.D., M.Ch., Gynaecologist to the Sydney Hospital.

Radiograph of Fœtus in Utero by Herschel Harris, M.D.

Mrs. P., æt. 35, was treated by me in May, 1905, for dysmenorrhœa and sterility. She had been married then 4½ years. Conception took place the following September. In July, 1906, I was asked to see the case in consultation, as she was then two weeks over full time; movements of the fœtus had ceased for several days; the urine was albuminous, and there were symptoms of impending eclampsia. I recommended induction of labour by bougie. This was done.

The membranes ruptured ten hours after insertion of the bougie; labour pains came on 28 hours after this, and delivery by forceps of fœtus, which had evidently been dead for

*These papers may be obtained from Messrs. Detmold & Co.



FIG. 1.—Radiograph by Dr. Herschel Harris of full term fetus in utero, right shoulder presenting, back behind, abdomen in front, head to the right, breech to the left. It should be remembered that in a radiograph the position of parts is transposed.

1

2

some days, with manual extraction of very adherent placenta, was completed in 18 hours. Convalescence was uneventful.

On January 20th, 1908, patient was two days past full term of her second pregnancy. Movements of the foetus had not been felt for two days; the urine was again albuminous, and there was recurrence of the headache, insomnia and restlessness, which were so apparent at the same period of the first pregnancy. At the urgent request of the patient her medical attendant again inserted a bougie at 9 o'clock on the morning of January 20th; chloroform was used, and even then there was much difficulty owing to the extreme obesity of the patient. The bougie came away spontaneously at 9 p.m. (12 hours after insertion), the membranes ruptured at 2 o'clock the next morning (January 21st), with slight pains and the discharge of an abnormally great quantity of liquor amnii. Regular labour pains began at 3 a.m. on the 22nd (25 hours after rupture of membranes), and became continuous in the afternoon. The temperature went up to 101.4° and the pulse to 112. The patient weighed $16\frac{1}{2}$ stones, and there was so much fat in the abdominal parietes that the skin of the upper and central abdomen hung down in a huge fold over the lower parts. An acute intertrigo had developed where the two were in contact.

Under such conditions diagnosis by external palpation was extremely difficult, while per vaginam, owing to the amount of fat and the height of the vault, the presenting part could only be palpated after the hand had been inserted into the vagina under chloroform. The medical attendant came to the conclusion it was a cross birth, and as the general condition was rapidly getting worse I was sent for in consultation, and saw her at 7 p.m.

The patient looked anxious; pulse and temperature as above mentioned; abdomen very tender; the uterus tightly moulded to the shape of the foetus, which could not be moved apart from the uterus in the slightest degree. Owing to the tender, dry tumid condition of the vagina no examination could be made until chloroform had been administered. It was then found that the os was the size of a five-shilling piece, and that firmly impacted in it was the right shoulder of the foetus; the back was backwards and downwards, the foetal head in the right iliac fossa, the breech in the left iliac fossa, the abdomen forwards and upwards.

The shoulder pointing to the mother's right side, the presentation would thus come under the head of *first position of Winckel's classification*, or *second position of Hohle's classification*, and, according to Edgar, it would be *right scapula-anterior*. The os was dilated manually by Harris's method, and an attempt made at version, but it was quickly found to be impossible to reach the lower limbs of the child, and that this procedure was quite out of the question. Persevering efforts were then made to decapitate until an ominous cracking sensation was felt by the hand, and seemed to indicate that rupture of the thinned out lower uterine segment was immi-



FIG. 2.—Stereoscopic photograph by Dr. Clendinnen, of Melbourne, of uterus containing full term foetus, right shoulder presenting, back behind, abdomen in front, head to right, breech to left.

nent. The foetal head in such a case as this is above Bandl's contraction ring, and the neck much more inaccessible than diagrams in text books would lead one to think.

All efforts to deliver by the natural passages having failed, it was decided to perform abdominal section, and as infection of the genital tract clearly existed, to remove the uterus with contents entire rather than adopt Cæsarean section. Under the circumstances it was impossible to wait for the ambulance, and the patient had to be taken to the hospital in a hansom cab. She reached there at

10.30 p.m., and the operation was immediately commenced.

On incising the peritoneum a considerable quantity of dark turbid ascitic fluid escaped, which I took to be evidence of peritoneal irritation, if not infection. The difficulties of the operation were merely those due to the great corpulency of the patient and the obstacle to keeping clear the operation field thereby presented. I was also, however, somewhat handicapped by having to work with strange and insufficient instruments.

After removal of the uterus and contents *in globo* with the right appendage (see fig. 2), the vagina was carefully closed with the peritoneum over it, the ascitic fluid sponged away, and the parietal wound brought together without drainage. The pulse was only 88 at completion of operation, and this was the highest point it reached during convalescence, which was quite easy and uneventful, except for slight suppuration of the lower angle of the abdominal wound in the neighbourhood of the intertrigo.

For a few days there was an offensive vaginal discharge, probably due to superficial necrosis from the prolonged vaginal proceedings. The highest temperature recorded was 100°.

Remarks on Transverse Presentations.—Transverse presentations are not very uncommon. In 5630 deliveries in the Rotunda Hospital there were 17, or 1 in 331, while at other clinics it has been noted as frequently as 1 in 130 and 1 in 200.

In this case there were present three of the conditions usually given as favouring the occurrence of a transverse presentation, viz., hydramnios, dead child, and obliquity of the uterus from atrophied abdominal muscles.

In diagnosis external palpation is chiefly to be relied upon, but was not available in this case. Unless an arm has prolapsed the finger may not be able to reach the presenting part per vaginam. Under such circumstances chloroform should be given and the whole hand passed into the vagina so that the lie can be accurately determined. When the bag of membranes pouch down into the vagina like a sausage or finger of a glove, the obstetrician should always look upon it as a warning that something is wrong, and should take immediate steps to clear up the diagnosis before the golden moment for interference has passed.

Treatment.—In treatment the patient should be kept recumbent and quiet so as to

preserve the integrity of the membranes if possible until the os is well dilated. She should lie on the same side as the lowest pole of the foetus in order to favour spontaneous version.

It is a wise precaution not to leave the patient until one has got down a leg, as the membranes may rupture during one's absence, and turning by the bipolar method or internal version be consequently rendered difficult or impossible. If the case is not seen until after the membranes have ruptured, the patient should at once be put profoundly under the influence of chloroform, and a determined but cautious attempt made to perform podalic version, dilating the os if necessary by Harris' manual method, the Bozzi dilator, or the De Ribes' bag, the latter having the advantage of preventing the escape of any remaining liquor amnii. Should a raised contraction ring, tension of the round ligaments and the other local and general signs, so well marked in this case, indicate tonic contraction of the uterus and impending rupture, the time for turning has passed and the practitioner must at once proceed to decapitation or embryulcia.

If an arm has prolapsed, by means of which the neck can be drawn down, decapitation is easier. As a substitute for an arm a powerful volsellum forceps, such as is used for morcellement of uterine fibroids, dug into the shoulder is very useful as a tractor, and facilitates the action of the scissors or passing of a hook over the neck.

When I found myself faced by the impossibility of carrying out any of these procedures in this particular case I had not heard of abdominal section as an alternative mode of treatment in such an exigency, but on more than one occasion I had seen disastrous consequences follow the prolonged vaginal manipulation and unavoidable traumatism involved in a difficult embryulcia, and I felt that if I could arrange my technique to avoid peritoneal sepsis from the infected uterus, delivery by the abdominal route would give the patient a good chance.

Since the operation I have looked up the literature. Edgar says: "Laparotomy, with the Cæsarean or Porro operation, is certainly safer in many neglected cases than a difficult decapitation." Williams writes: "Cæsarean section might be thought of; it should not, however, be undertaken except at the express wish of the patient and her family, and then only after they have been made fully conversant with its inherent danger in the case of a patient who is in all probability already in-

fects." The other works on obstetrics contained in my library, mainly Hirst, American Text-book of Obstetrics, Reynolds & Newel, Herman, Jardine, Tweedy, Jellett, do not refer to abdominal section as a method of treatment.

I can find no record of the operation ever having been performed for this condition, and I may therefore perhaps hope that this paper may be of value in calling the attention of obstetricians to an additional resource in dealing with one of the most dangerous complications in midwifery.

(Read before the New South Wales Branch of the British Medical Association.)

THE USES OF BOZZI'S DILATOR IN THE ARTIFICIAL DILATION OF THE OS UTERI IN LABOUR.

By J. L. T. Ishlster, M.B., Ch.B., B.Sc. (Adel.), Sydney.

It is sometimes said that we are meddlesome in our midwifery, and that if we left Nature to herself, gave fewer drugs, less chloroform, and examined less often, the patient would be all the better for it. This may be true, but after all there are left some cases where Nature fails and without a very apparent cause. Take the case of the unfortunate primipara with a thin slowly dilating os—so slow that the woman gets no real rest or sleep day or night for several days. There may be superadded vomiting, preventing her taking the all-important food and nourishment, and the weather may be semi-tropical and day, and night both alike hot. Want of sleep, want of food, and an exhausting atmosphere may not be dangers, but they pave the way for real dangers, such as uterine inertia and post-partum hæmorrhage, and these in their turn predispose to retained placenta and membranes and sepsis. In obstetric practice one train of circumstances will frequently lead to another. Far too often the labour is ushered in by rupture of the membrane or at least by a leakage of the waters before the os is fully dilated. If so there is real cause for anxiety. Pulse and temperature may still remain normal, but in time we must expect them to show a slight rise. The patient looks exhausted, and yet the os is perhaps not more than half dilated. In such a case we can complete the labour by dilatation of the os and application of forceps. We may employ manual dilatation or Champetier de Ribes' bag or some metal dilator, such as Bozzi's or Fromer's modification of the same. Of three such cases I can speak in which the

membranes being ruptured the partially dilated cervix was fully dilated by a Bozzi's dilator without inflicting any macroscopic rupture of the same. All three cases made an uneventful recovery without temperature, and the artificial completion of the labour did good and may have prevented much harm.

Let us take another class of case. The patient was at full term, and I was summoned because she had had a slight fainting attack. She recovered before my arrival, and seemed very bright and well. Labour had not even started, and everything appeared to be normal, but I had really failed to detect the beginning of a concealed accidental hæmorrhage, as six hours later when I was recalled the bed was swimming in blood and the patient only half conscious. There were no labour pains, and the os quite undilated. The hæmorrhage had ceased, but it might only be for a time. A firm abdominal binder and vaginal plug were the best temporary means. It was the dead of night, and there was neither the means nor the time to remove the patient to a private hospital and call in more skilled advice. Acting on Dr. Worrall's suggestion by telephone I prepared to dilate the cervix, but by the time the anæsthetist arrived the first pains of labour had started, and it was unnecessary to interfere, as the pains were strong and rapid and labour completed in a comparatively short time. The child was born alive, but died a few hours afterwards. Had the concealed hæmorrhage been diagnosed earlier the child's life might possibly have been saved by the artificial dilatation of the cervix with the Bozzi's dilator, and the application of forceps. As it was, the mother only just escaped bleeding to death.

And then, lastly, I would mention together three cases of eclampsia, and it is here that the dilator will probably find its most extensive field of usefulness. Rest in bed, diet, and purgatives in large doses had failed to prevent a steady increase in the amount of albumen. One or more bougies in the uterus and a firm plug of gauze in cervix and vagina are not always certain means of starting labour—sometimes they do and sometimes they do not. They are doubtless the best means to adopt in threatened eclampsia, but are not always rapid enough. In one patient they did a little good, but in the remaining two the os had to be fully dilated artificially. All three of these labours were finished successfully under an anæsthetic by means of a Bozzi's dilator and forceps.

For the application of the dilator few preparations are necessary, and in this lies much of its value for emergency work. With the patient in the across-bed position it is possible to carry out the operation with all aseptic and antiseptic precautions. Under an anæsthetic the vagina is swabbed out and a warm boracic douche used to keep the field of view clear. A posterior retractor, a tenaculum for the cervix, and a good light are necessary—an electric hand torch, or better, a head light. This question of light is important. Rubber gloves can be worn if the operator has lately handled a septic case. None of the patients mentioned developed septic symptoms, and their general condition made them more liable than usual. In manual dilatation the aseptic precautions are difficult to carry out.

It is said of Bozzi's dilator that it is such a powerful and dangerous instrument, and so it truly is if used carelessly. Used carefully it dilates more gradually than the over-tired cramped hand, which we all know makes spasmodic efforts and certainly does not keep up a steady continuous dilatation all the time, but relaxes its energy and so loses time. Certainly the hand has its advantage in softness, but I think rubber tubing could be fixed behind the caps of the dilator. The dilator is best used with a clock in full view. This prevents one hurrying, and it is really necessary, for one must constantly remember that the instrument is very powerful and capable of doing great damage, and that the cervix is sometimes easily torn. An undilated os which is not rigid can be fully dilated in from 40 to 50 minutes—this is hastening slowly, for some authorities do it more rapidly. The position of the prongs in the cervix can be altered, and the posterior prong wants watching, for it frequently slips out into the vagina, and as it is the hardest to see, the operator has to feel for it with his finger. For this reason a more than four-pronged dilator is harder to control; such is Fromer's modification, which has eight prongs.

One other point: the indicator scale on the handle is said to be a measure of the dilatation of the cervix, but it is not truly so. Mathematically what we require is an indicator of the lateral stress on the arms of the levers. In practice the ends of the arms are bent inwards by the strain, and the more rigid the cervix the greater the strain and the more the bending. When the vernier scale reads say five with a rigid cervix, the dilatation is less than when it reads five with a soft dilatable cervix. Hence one must not depend on

the scale alone, but on the appearance and tension of the cervix—the bending of the arms and the feeling of pressure on the screw.

Some will say, why not use a Champetrier de Ribes' bag in some cases, and no doubt that is true of many but not of all. The bag is more gradual and softer, but it is not quick enough in accidental hæmorrhage and hardly quick enough in eclampsia. It is harder to sterilise, it is not always easy to introduce, and it cannot be used if the os is quite undilated. Again, the bag passes several inches into the uterus and tends sometimes to alter the presentation, which is not one of the faults of the metal dilator. The newer operation of vaginal Cæsarean section may in time, according to recent authorities, supplant dilators of all kinds for a certain class of case, but it of necessity requires a skilled operator, an hospital, and many assistants and nurses, all of which are so often unattainable and are not necessary for the emergency application of a Bozzi's dilator.

In conclusion let us not forget that the dilator is very powerful and very dangerous if used hastily. If we always remember this the instrument will always be safe in our hands.

(Read before the New South Wales Branch of the British Medical Association.)

ANTE- AND POST-PARTUM HÆMORRHAGE.

By Fourness Barrington, M.S. (Edin.), F.R.C.S. (Eng.), Surgeon, Lewisham Hospital for Women, Assistant Gynæcological Surgeon, Royal Prince Alfred Hospital, Sydney.

WHEN the Secretary of the Branch asked me to read a paper on the subject of Ante and Post-Partum Hæmorrhage to furnish material (with the previous papers) for an obstetrical evening, I was not anxious to respond, but under his persuasive powers I ventured to undertake the rôle. To deal adequately with so comprehensive a subject would take up far more time than is allotted to me. I shall, therefore, confine myself as far as possible to the practical aspect of the subject, touching on those methods of treatment I have found most reliable in practice. This will account for the scrappy nature of the paper, necessarily composed, from the enforced attempt at conciseness, of dry details. With its many shortcomings it is submitted as a means to an end, viz., a discussion on the subject.

Ante-partum Hæmorrhage.—Under this designation may be included cases of uterine hæmorrhage from the placental site, during

the last three months of pregnancy or the first and second stages of labour. Thus defined, the cases are divided into two classes, the essential difference between them being the situation of the placenta.

(1) In the more frequent, the placenta occupies some part or the whole of the lower uterine segment. Ante-partum hæmorrhage is bound to occur, because the changes which normally take place in this segment before and during labour inevitably cause the placenta to be detached from it. These are known as cases of placenta prævia or unavoidable hæmorrhage.

(2) When the hæmorrhage results from premature separation of the normally implanted placenta it is called "accidental." Clinically there are two varieties in this class—concealed accidental hæmorrhage and revealed accidental hæmorrhage.

Diagnosis.—As in both placenta prævia and revealed accidental hæmorrhage there is visible external bleeding, a definite diagnosis as to which exists can only be made with certainty by digital examination through the internal os, and recognising that in the former the placenta occupies the lower uterine segment. When the placenta cannot be felt in the lower segment, and either bare uterine wall or blood-clot is palpable, the case must be regarded as one of accidental hæmorrhage.

Concealed Accidental Hæmorrhage gives rise to a train of signs and symptoms which are characteristic :—

1. Those due to rapid over-distension of the uterus. There is severe ever-increasing pain combined with shock. On examination per abdomen the uterus is very large, very hard, and very tender; the foetal parts cannot be outlined and the foetal heart is inaudible. The visible bleeding from the uterus is slight or absent.

2. Those due to loss of blood, varying with the severity of the bleeding—*e.g.*, increased rapidity of pulse rate, subnormal temperature, pallor or blanching of skin and mucous membranes, and in cases of great intensity, syncopal attacks, rapid deep breathing, restlessness, cold perspiration and rapid death.

Treatment of Placenta Prævia.—The first point to emphasise in treatment is that pregnancy or labour should be terminated in the most conservative manner as soon as possible after placenta prævia has been diagnosed, whether the hæmorrhage has temporarily ceased or not. Cases should in the first place be treated by one of the following methods :

(a) By plugging the lower uterine segment with the half-breech.

This method may be adopted when the cervix is sufficiently dilated to admit two fingers and the membranes unruptured. If the head or shoulder presents, bipolar version must first be performed; if the breech presents, version is obviously unnecessary. In cases of central placenta prævia, the placental tissues must be penetrated to gain access to the amniotic sac. In the marginal variety, the edge of the placenta should be sought and the membranes ruptured outside it. Always endeavour, however, to reach the edge of the placenta rather than perforate its substance. One foot is then seized, if necessary by bullet-forceps, and a leg pulled down into the vagina; the half-breech plugs the lower uterine segment very efficiently, and gentle traction being maintained by a noose of tape round the ankle, continuous and effective compression of the placental site is kept up. After this manœuvre delivery should be left to nature and on no account be hurried, but abdominal massage may, if necessary, be employed to stimulate uterine action. This method, utilising a natural dilator, attains the main essentials for safely treating a case of placenta prævia, *viz.*, checking hæmorrhage, promoting dilatation of the cervix, stimulating uterine action, and promoting evacuation of the uterus. A word of warning may be uttered about the employment of accouchement forcé in these cases. It is imperative to remember that no attempt should ever be made to deliver the foetus through an incompletely dilated os. Owing to the softened and vascular condition of the cervix, the risk of laceration is great, and a fatal traumatic hæmorrhage may supervene if any of the large vessels going to the placenta are torn across.

(b) By plugging the lower uterine segment with a rubber dilator, *e.g.*, de Ribes' bag. This is an excellent alternative to the first-named in head presentations. The membranes must be ruptured before the introduction of the bag into the amniotic sac. If inflated with air it is a safer and quite as efficient a dilator as when filled with boracic or normal saline solution. To cause sufficient compression and ensure continuous traction, it should be connected to the foot of the bed by an elastic cord or a light weight (2 lb.) extension apparatus employed. It is allowed to remain in the uterus until the cervical canal is so dilated that it slips out, the average time

of this occurrence being about five hours delivery being then accomplished by forceps. For use in general practice it is inferior to version, but in the rare cases, where the membranes have been ruptured, and turning is no longer possible, it may be of great service as a preliminary to slow forceps extraction.

(c) By plugging the cervix and vagina with gauze.

Should be strictly limited to those few cases in which the bleeding is considerable, the patient is not in labour, and the cervix will not admit two fingers. The plug should be tightly placed in the cervix and the vagina, from the fornices to the vulva, be of iodoform gauze, wrung out of half per cent. lysol solution, and should not remain in longer than six hours. A tight abdominal binder should be applied. Sufficient dilatation is then usually obtained to allow delivery to be effected.

Treatment of Concealed Accidental Hæmorrhage.—Most of these cases occur before the patient is in labour and do not admit of temporising measures. Complete uterine inertia occurs owing to paralysis of the uterine muscle from over-distension, and it is therefore impossible to induce labour pains. The bleeding must be immediately checked, and in order to do this the seat of hæmorrhage must be directly reached. Great care and judgment are needed in planning the line of treatment. The choice, guided by the urgency of the case, will lie between:

1. Instrumental dilatation of the cervix to permit the introduction of de Ribes's bag or manual dilatation with delivery by version or forceps.
2. Obstetric hysterotomy (so called vaginal Cæsarean section) being safer, as it can be more rapidly carried out, and entails less shock than either supra-vaginal hysterectomy or the classical Cæsarean operation.

But whatever is decided upon must be carried out without a moment's delay. In grave cases, during the interval between the diagnosis and the operative measure being commenced, the vagina may be plugged, an abdominal binder applied and an attempt at restoration made by saline enemata or saline infusion. When the patient is in labour with strong uterine contractions, the risk is greatly diminished, and the treatment is the same as that of cases of revealed accidental hæmorrhage in labour.

Treatment of Revealed Accidental Hæmorrhage.—Both the treatment and the prognosis

depend to a very great extent upon the time at which the hæmorrhage starts. If the patient is in labour, the danger is greatly diminished, and the treatment simplified; in the absence of uterine contractions the reverse holds, and, it may be added, this general statement applies to all forms of antepartum hæmorrhage.

1. If the patient is not in labour. Slight cases may be treated palliatively by complete rest in bed, with the foot raised, light diet without stimulants and the administration of an opiate. These are the only cases of antepartum hæmorrhage that admit of such treatment, with this proviso, that after a single severe hæmorrhage or several slight recurrences, labour should be induced.

The first indication is the immediate checking of hæmorrhage, and the second, the induction of labour. Both these indications are fulfilled as follows:—Through a posterior speculum the vagina is tightly packed from the fornices to the vulva with sterilised iodoform gauze and cottonwool swabs, both wrung out of half per cent. lysol solution; an abdominal binder, tight enough to compress the uterus, is then applied; finally a T-bandage is brought down between the thighs, and fixed firmly over an ample wool vulvar pad. This plug is left *in situ* for 12 hours, by which time labour usually sets in; if not, it is reapplied. Careful watching of the patient is essential to see that concealed hæmorrhage does not occur; the first sign of such supervention being the complaint that the binder is becoming unbearably tight.

2. If the patient is in labour and the uterine contractions strong when the hæmorrhage starts, the first thing to be done is to rupture the membranes, but it must be emphasised that rupture of the membranes is only safe when the uterus is contracting vigorously and is therefore capable of keeping up the rhythmic contractions to prevent further hæmorrhage. If the os is small, the vagina is plugged as described until expulsive pains occur. If the os admits two fingers only, adopt bipolar version. If the os is half or more dilated and the presenting part is not fixed, podalic version, followed by extraction is the best line of treatment. If the os is fully dilated and the head fixed, forceps extraction is indicated. The treatment outlined in these cases of revealed accidental hæmorrhage is the method adopted by the Dublin School with the best results.

Conduct of the third stage following Antepartum Hæmorrhage.—The greatest care must

be exercised. If the ante-partum hæmorrhage has been copious, the extra amount lost post-partum may not be great because of the collapsed condition of the patient, yet it is sufficient to settle the question of life or death. Therefore in such the possibility of prompt manual removal of the secundines may be foreshadowed and the necessities for immediate uterine tamponade should be in readiness. I cannot help thinking the last-named is a wise procedure in such cases, as a prophylactic against further blood loss, for the gauze not only presses directly on the utero-placental vessels but the uterus, invariably contracting upon it, prevents the copious post-partum trickle, which may be regarded as the last straw accounting for a fatal issue.

Post-partum Hæmorrhage is applied to any loss of blood so copious as to produce constitutional symptoms after the birth of the child. Reference is alone made to primary post-partum hæmorrhage which may be—(1) Placental site hæmorrhage; (2) Traumatic hæmorrhage.

Treatment of Placental Site Hæmorrhage.—*A. Prophylactic Treatment.*—Proper management of the second and third stages of labour reduces the number of cases of placental site hæmorrhage to a minimum.

The second stage must not be allowed to exhaust the uterus, and must be terminated artificially when necessary; methods of hastening delivery should assist but never replace uterine action, and cessation of pains during the second stage of labour must ever be regarded as an absolute contra-indication to delivery. The key to the successful management of the third stage is the unremitting watchfulness of the left hand, which is kept on the fundus, roofing it over as it were, by sinking its ulnar edge transversely into the abdomen just below the umbilicus, during the entire stage. This unremitting watchfulness is adapted to control the uterus, to ascertain the condition of contraction and relaxation, to promote contraction by gentle friction on the fundus, and to prevent the accumulation of clots in the cavity when contractions are feeble or absent. The detachment of the placenta can only be carried out properly by the natural mechanism, and premature use of Credé's manœuvre is harmful, because it interferes with the process of continuous retraction of the uterine muscle, which needs time, and is essential alike for the efficient closure of the uterine vessels and the physiological detachment of the placenta.

Too early and too energetic employment of Credé's manœuvre therefore lays the patient open to the risk of hæmorrhage and retention of a portion of the secundines. The detachment of the placenta may take from ten minutes to an hour or more, and the time is well spent, for it may save the obstetrician hours or days of subsequent anxiety. The proper time for resorting to Credé's manœuvre is when the uprising fundus and lengthening cord indicate that the physiological separation of the placenta is complete; then it is good practice to help Nature and conclude the third stage, during a uterine contraction, by expression from above. Put tersely, the left hand plays the part of a sentinel to the uterus, watching and guarding it during the period of placental detachment, but it becomes an active expressing agent when this period is completed by Nature. When the placenta appears at the vulva, it should be received in the right hand, rotated so as to twist the membranes, the latter being allowed to slip out without traction. When after careful inspection it is ascertained that the secundines have come away in entirety, a hypodermic injection of ergotin should be given deep in the buttock. Of course, if there is undue placental hæmorrhage it would be dangerous to await spontaneous separation of the placenta; but what I wish to emphasise is this: that a hurried normal third stage is responsible, not only for post-partum hæmorrhage but for complications during the puerperium, and as a consequence increased puerperal mortality and morbidity.

B.—Immediate treatment in the main is directed towards restoration of the suspended activity of the uterine muscle, in order to ensure its continuous retraction. For success it is essential in the majority of cases to plan a definite course of action and to know the successive steps thoroughly. The plan must be methodical, and implies that the failure of each reliable measure in turn requires promptly the adoption of a subsequent more serious manœuvre. Such a plan is as follows:

1. Manipulation of the uterus per abdomen. If the hæmorrhage starts after the birth of the child and is not checked by massage of the fundus, ascertain if the placenta is in the uterus or vagina. If in the uterus, try fuller massage for a short time. If this does not check the bleeding, or if the placenta is in the vagina,

2. Manual expression of the placenta by Credé's method, if possible, and then stimulate the fundus by friction and compression

with both hands. If the placenta cannot be expressed,

3. Clearing out the uterus. Place the patient in the cross-bed position, pass a catheter, remove the whole placenta and membranes by the gloved right arm working in conjunction with the left hand on the abdomen. Then give a hot intra-uterine douche of lysol (1 drachm to the quart), prepared by the nurse during 1, and administer ergotin hypodermically. These measures suffice for all but the most serious cases. If the placenta has been previously expressed and bleeding persists, do not waste time by douching out the uterus, but immediately adopt

4. Bimanual compression of the uterus, it being now evident that evacuation of the uterine cavity fails to induce proper retraction and the inertia is intractable. Compress the fundus firmly between the closed right hand in the vagina and the other on the abdominal wall, and keep up firm compression until the contraction of the uterine muscle is well maintained for some time, to enable the organ to recover its tone. A hot intra-uterine douche may then be given. Direct pressure on the bleeding organ and the placental site must control the hæmorrhage from the utero-placental vessels. There is no case of placental site hæmorrhage which cannot at once be completely controlled by bimanual compression provided the uterus has been previously emptied of its contained blood-clots and placental fragments by the hand.

5. Tamponade of the uterine cavity with iodoform gauze. Being satisfied the uterus is completely emptied, pass a posterior speculum, pull the uterus well down after seizing the anterior and posterior lips of the cervix with bullet-forceps; support the outside of the uterus with the left hand, and rapidly pass the gauze with the hand or long forceps in such a manner as to tightly pack the whole uterus and the vagina down to the vulva. The gauze must be removed in from 12 to 24 hours, and an antiseptic intra-uterine douch given.

It is hardly necessary to add that the most rigorous aseptic technique must be observed in all intra-uterine manipulations, which can be very materially added by a rubber-gloved right arm.

The last step in all cases is external tamponing of the uterus. Place pads or towels on the abdominal wall above the fundus and apply firmly the binder, which should always

be ready in position under the temporary bed, before labour.

Finally, in regard to placental site hæmorrhage, it must be clearly understood that while a systematic method is advocated in the majority of cases, it is impossible to follow a stereotyped plan in all cases. Special cases, and these the minority, need special treatment. In cases of great urgency, therefore, lose no time, but use at once a method that will immediately stop the hæmorrhage—*e.g.*, immediate and complete evacuation of the secundines promptly followed by bimanual compression of the uterus.

Treatment of Traumatic Post-partum Hæmorrhage.—If the hæmorrhage is continuous, and continues in spite of a completely emptied and well contracted uterus, it must be traumatic and may originate in the neighbourhood of the clitoris, but usually from deep lateral tears of the perineum or laceration of the cervix, which may extend to the vaginal roof. Catgut sutures deeply passed by a curved needle and tightly tied will completely control the hæmorrhage.

Restorative Treatment in Post-hæmorrhagic Collapse.—The hæmorrhage, whether ante or post partum, having been controlled, it is imperative to counteract the effect of the severe blood loss and the resultant collapse. The indications for treatment are threefold—

1. To stimulate the heart: alcohol by mouth, strychnine hypodermically, coffee and brandy enemata.

2. To keep the blood in the important organs, *i.e.*, the brain and viscera: by raising the foot of the bed.

3. To increase the amount of fluids in the blood vessels: by giving plenty of diluent drinks by the mouth, by administration of normal saline enemata, and by the infusion of sterilised saline solution into a vein or into the loose cellular tissue of the axilla. In really bad cases, *i.e.*, when the patient is cold, blanched with feeble, almost uncountable pulse, her interests will be best served by immediately infusing normal saline solution into the median basilic vein, the fluid being slowly run in at a foot elevation, until two or three pints have been given. In addition, the patient must be allowed the greatest possible amount of fresh air by opening all the windows and kept warm with hot guarded bottles and overspread blankets. The obstetrician will need to stay for some time by the patient until the fear of renewed hæmorrhage or secondary collapse is past.

Finally, seeing that post-partum hæmorrhage may occur without warning in any case of labour, the obstetrical outfit should contain a posterior speculum (preferably weighted), a strong vulsellum, speculum forceps, needles and needle-holder, iodoform gauze for uterine tamponade, an infusion needle and the apparatus necessary for venous infusion.

Text Books consulted: Even's Manual of Midwifery: Jellett's Text Book of Midwifery: Williams' Obstetrics.
(Read before the New South Wales Branch of the British Medical Association.)

DISTURBANCES OF MENSTRUATION.

By William T. Chenhall, M.D., F.R.C.S. (E.) Sydney

DISTURBANCES of menstruation bulk so largely in the daily work of the family physician and gynæcologist that no apology is needed in introducing the subject for discussion. Observation of 500 consecutive cases in my private practice convinces me that the menstrual habit of every woman embraces curiously individual prodromata and coincident phenomena peculiar to herself. Menstruation and ovulation are correlative and practically synchronous, being both controlled by a common factor to which functional activity of the ovaries is essential. Ovulation causes increased metabolism before; lassitude, headache, sense perversions and pigmentations during, and increased sexual activity after the flow, which itself depends upon normal intense congestion of the uterine mucosa. Disordered menstruation is always symptomatic. Exact treatment, therefore, depends upon recognition of its cause.

Amenorrhœa, relative or absolute, dependent upon anatomical lesion is permanent, but when constitutional or psychical causation exists the symptom is transitory and proportional to that factor. In congenital or acquired stenosis menstruation may occur, but external evidence is absent. Cessation during pregnancy and lactation is normal, yet I have seen coexistence of pregnancy of three months' duration, lactation and menstruation. I suspected placenta prævia. Of four cases of sudden suppression, mental shock caused two, the cold douche one, and in the fourth no definite cause could be discovered. This patient, aged 30, at present in private hospital, began menstruation at 15, and was married at 24. At 18, when suffering chlorosis and gastric ulcer with hæmorrhage, menstruation ceased for three months. A few months prior to marriage the intervals lengthened and the flow diminished.

Normal, painless menstruation occurred twice after marriage, but not since. Pregnancy did not occur, and general health, except for constipation, remained good. Anæmia now exists, but is not marked. Periodical headache becomes very severe. Leucorrhœa was profuse. Patient conforms to feminine type. The cervix uteri is small, but the uterus itself and adnexa are normally developed and placed. I dilated the cervix fully, curetted and applied iodine to the mucosa. Constipation is being overcome by aloin and iron and manganese administered. This condition, due rather to arrest than perversion, will, I am hopeful, respond to the irritant, vaso-dilator and general tonic effect of the negative pole of the galvanic current. I propose to pass a weak current up to 50 milliamperes for five minutes, followed by massage of the uterus each second day. This I shall continue for three months or until menstruation is induced.

If the Faradac current be preferred, a bi-polar electrode containing the positive and negative poles separated by non-conducting material should be introduced, the current being slowly opened and gradually closed during 15 or 30 minutes and before the electrode is removed. The action of the current is thus limited to the tissues requiring treatment, and pain is much less.

I prefer gradual forcible dilatation with Hegar's metal dilators to the use of the stem pessary, Wyllie drain or tents, since the liability to infection may be reduced to a minimum, and the results are equally satisfactory. Two patients at present suffering marked relative amenorrhœa are both well-developed healthy women. Each has one child about five years old. Menstruation has gradually become less, but no organic lesion is revealed at examination. Curiously, both bear some relation to eclampsia, since I delivered one's child in the midst of eclamptic seizures, and the other patient's sister has suffered eclampsia with each of her three children.

Vicarious menstruation is a misnomer. Periodic hæmorrhage other than uterine, even when synchronous with ovulation, is not a menstrual secretion. In three cases it was simulated by a nasal polyp, a gastric ulcer and an internal pile, the bleeding being doubtless induced by increased metabolic activity of the ovaries at the onset of what should have been a menstrual period.

Examination with the stethoscope will afford unsuspected opportunity for inspection

of the breasts, the condition of which, added to the history, will afford warrant or otherwise for examination of the pelvic contents.

Shock, local and general, as well as psychological influences, should be carefully investigated, and among the category of causes, chlorosis, tuberculosis, diabetes, gastric catarrh, leukæmia, myxœdema, acromegaly, Addison's disease, Basedow's disease and hæmorrhage must be considered.

Sentiment must not warp judgment in deciding between postponement and immediate examination. Delay is inadmissible where coincident phenomena are manifest without flow, where severe pain controllable only by anodynes and sedatives occurs, or where the distress is possibly due to sudden accidental displacement of the uterus. Drugs are notoriously uncertain stimulants of menses, constitutional treatment, 'ante-periodic' menstruation, but in hopeful cases mental assuages, hot baths and counter-irritation will prove beneficial aids to aloes, iron and manganese. The nerve influences controlling menstruation must never be ignored. The patient should be constantly inspired by hope.

Imperfect development is practically incurable, but in adolescents the cause may be due to arrest rather than perversion. Hence, patience should be observed and hope entertained for a long period. Baldwin claims to have recently very successfully constructed an artificial vagina from portion of the intestine, but his case has not yet been published. In uterus didelphys and uterus bicornis, amenorrhœa with relative amenorrhœa is frequently met. In uterus septatus one cavity may not communicate with the vagina, and hæmatometra with its train of serious symptoms may arise. In uterus unicornis the cervix is usually small, the vagina narrow, absent or septate; amenorrhœa frequently exists, but sometimes menstruation is normal and pregnancy, practically extra-uterine when the horn is rudimentary, occurs. In some cases of rudimentary uterus the adnexa are normal and the external genitals well formed. In one patient, married at 19 and of small stature, I found the uterus small, but the external genitals and adnexa normal. After the third dilatation pregnancy occurred and continued to term. A colleague has recently delivered her of a second child.

Another woman, aged 41, sent to me from New Zealand two years ago, was so arrested in development of the vagina that I could with difficulty only insert my index finger. Though married six weeks sexual intercourse

had not occurred. I gradually dilated the vagina with Hegar's dilators, and, after three weeks so expanded the cavity with my fingers that intercourse was easily performed. The cervix uteri being also dilated pregnancy almost immediately resulted and she has been delivered, at term, of a healthy child. Generally, when the uterine cavity is rudimentary, even when the adnexa are healthy and well-developed, relative or absolute amenorrhœa, accompanied by dysmenorrhœa, occurs.

It is most important that foetal and pubescent forms of uterus should be discovered before marriage, since in the latter menstruation may be stimulated, further development accrue, and, after marriage, pregnancy result. Marriage should never be recommended unless menstruation be established. It is manifestly unscientific and wicked to establish hopes for the stimulation of menstruation by coition and resultant fruition upon so weak a basis. After marriage local treatment under the strictest asepsis is worthy of prolonged trial.

Hæmatometra due to atresia will require puncture and subsequent dilatation. In one case of hæmatometra occupying a rudimentary horn I resected the horn by abdominal section, closing the wound in the uterus by deep and superficial sutures.

Simple dilatation will relieve stenosis with relative amenorrhœa, after which the galvanic current may be used.

Oöphorectomy in the absence of distinct lesion of the ovaries is not permissible in cases of relative amenorrhœa with dysmenorrhœa. Ovulation is dependent upon increased circulation, and is associated with metabolic activity. If pain be due to resultant congestion of healthy ovaries, though I doubt it, then to lessen the arterial supply by ligature would seem more rational. The ovaries are essential in maintenance of physical and psychological balance and so fundamental to a woman's well-being that I would rather allow her to suffer some pain than substitute distress, different, but equal or worse, by sudden artificial induction of the menopause. Since the experiments of Carmichael and Marshall have shown that removal of the uterus in a young animal has no influence in preventing further development of the ovaries which are capable of ovulating and forming corpora lutea after adult life has been reached; that removal of the uterus in an adult animal does not give rise to any degenerative changes in the ovaries if the vascular connections of the latter remain

intact one may assume that in congenital cases of relative amenorrhœa unpleasant sequelæ may be obviated by removal of the uterus, thus checking menstruation and leaving the tubes and ovaries to carry on their functions of ovulation and internal secretion. Should necessity arise I would follow this plan of procedure, closing the uterine end of the tube and leaving the tubes and ovaries *in situ*.

Menorrhagia is but a symptom, and pelvic congestion its immediate cause; hence exact diagnosis of this cause, direct or indirect, must be made.

I carefully investigate the blood, lymphatic, circulatory, digestive and excretory systems especially in virgins before local examination is made. Locally, one finds the cause in some metritis, endometritis, or glandular hyperplasia, uterine polyp, adenoma, fibroma, carcinoma, threatened or incomplete abortion, cystic degeneration of the ovaries or other abdominal tumour. All the above appear as causative factors throughout my series of cases, but the possibility of sarcoma and of chorio-epithelioma should always be borne in mind. In virgins examination is unwarranted until constitutional causation is eliminated when, under anæsthesia, it should be done without delay, provision being made, at the same time, to remove any simple cause which may exist. In young child-bearing women conditions responding to local operative treatment usually exist, and delay is unnecessary and unwarranted. The same rule applies to older women. In both these classes examination of the pelvic organs is imperatively demanded as the first procedure, but conclusions must not be hastily drawn to the exclusion of possible indirect causation. Medicinal treatment is paved with disappointment when gross lesion exists. The nature of this lesion will indicate the necessary surgical procedure.

Metrorrhagia is similarly placed as a symptom, but the frequency of sarcoma and carcinoma in causation establishes it clinically as a more serious condition. Cardiac insufficiency, hepatic cirrhosis, and syphilis are potent indirect causes, whilst, locally, one may find endometrial polyp, glandular endometritis, extra-uterine pregnancy, fibroid, chorio-epithelioma or carcinoma requiring surgical treatment. In two cases I found at the menopause of women previously fertile a curious form of metrorrhagia for which no definite local or constitutional cause could be

discovered. The increased density of the uterine wall was probably due to diminished elasticity, and several explanations, based upon this observation, have been made. None, however, are satisfactory. Metrorrhagia usually demands prompt operative treatment in removal of its cause, since it may seriously threaten life. Curettage is preferable to atmocauterisation, since it removes the cause without creating a sloughing surface. The positive pole of the galvanic current is sometimes very effectual.

Dysmenorrhœa presents two distinct types—the obstructive, a symptom of congenital defect or gross lesion, and the non-obstructive or spasmodic type, in which the normal rhythmical and painless contractions associated with healthy menstruation are replaced by arrhythmical, spasmodic and painful responses which are abnormal. With this latter I dealt very fully in a paper read before this Association.¹

The obstructive form is characterised by the occurrence of paroxysmal cramp-like pains which simulate those of labour. These may exist for a day or more before the flow, and subside when it is established but usually, they become more severe until an accumulated discharge is expelled, and then become easier. Some distinct lesion exists. Among unmarried and sterile women congenital defect is a frequent cause. I should say that endometritis, metritis, malposition of the uterus, pelvic inflammation, uterine polyp, fibroid and ovarian tumour thus stand in the order of frequency, but since it may be a symptom of every pelvic disease careful investigation is necessary. I have been so greatly impressed by the aggravation produced by obstinate constipation that I feel sure no treatment is thoroughly effectual which does not overcome that factor.

In congenital lesions the effects of removal of obstruction by operation are truly remarkable, even where a painful menstrual habit has become established by some obscure secondary changes. Antelexion only becomes pathological when the body and cervix of the uterus are nearly parallel; yet I should say from observation of my series of cases that antelexion of the uterus is the most constant congenital defect which causes obstructive dysmenorrhœa and sterility. Pessaries are useless in overcoming this deformity. Enlargement and straightening of the canal by dilatation or other procedure will probably fail to afford permanent relief

in bad cases. Many, however, occupy an intermediate position. Champneys regards antelexion in these cases as a sign that sterility has not yet been overcome and not requiring treatment. I entirely disagree with the application of this rule to sterility associated with obstructive dysmenorrhœa. Such association existed in a large number of my patients operated upon in private practice, where one may more easily follow results. These have been remarkable. The effect of these results has been to convince me that true spasmodic dysmenorrhœa is much rarer than I previously thought.

Acquired lesions demand equally thorough investigation, pain being meanwhile relieved by rest in bed, hot saline baths, and hot rectal enemata. Sterility is more frequently dependent upon imperfect development than is usually thought to be the case. I attribute one-third of all cases to this factor, whilst the balance may be equally divided between inflammatory diseases and acquired lesions, such as displacements and tumour-growths. Yet under presumably most unfavourable conditions pregnancy will not only occur but advance to term. Accurate diagnosis is essential. The gynecologist, perhaps more than any other surgeon, is so limited in his opportunities for examination that he should cultivate method and correctly estimate the significance of any lesion which is discovered.

In making a vaginal examination in these cases I take the vagina as a base line. Passing one's finger along this base line, the forearm and finger being straight and parallel with the surface of the table, one finds the cervix either perpendicular or parallel to this axis. If then the cervix be perpendicular to this axis and the os pointing posteriorly, the fundus uteri must be in a normal or, at least, an anterior position. If, on the other hand, one finds the cervix parallel to the vaginal axis, a pathological condition is invariably present, and the fundus will be found in a position of antelexion, retroflexion or retroversion. Since one will rarely find the cervix in an exact perpendicular or parallel with the vaginal axis, he must determine to which position it most closely conforms. This he may easily do with the examining finger. Thus, when the finger impinges against the anterior lip of the cervix, the latter must be perpendicular to the vagina, and the fundus will be in a normal or at any rate anterior position. The same finger will then also feel the os with the side of the finger, which itself, if kept in the

correct axis, cannot reach the posterior fornix without first lifting the cervix.

When the cervix lies in the axis of this vaginal base line, the finger, as Goffe² has shown, will impinge with its extremity against the os, will lie parallel to the anterior lip instead of being perpendicular to it, and being also parallel to the posterior lip it will readily reach the posterior fornix. Again, having determined these points, the finger may be passed around the cervix and will be found constantly parallel with it. It is important that the patient lie evenly upon her back, that the examining finger and forearm should be kept in the same line and parallel to the table, and that the hip be so placed as to support the elbow. The bladder and bowels should be thoroughly empty. Since the fundus of the uterus forms the central point for all pelvic examinations, its exact position and its freedom or limitation of movement must be determined bimanually. One hand should be so placed that its heel lies firmly on the symphysis, the fingers being placed and moved just above the pubic hair so as to press the omentum and intestines out of the way. The fingers should now be insinuated their full length into the pelvis so that the uterus may be palpated by pressing the examining finger against the cervix. It is very difficult for a woman whilst being examined to expire fully. Ask her to deliberately hold her breath for some seconds when complete abdominal relaxation will ensue. Should the cervix be found in the axis of the vagina, some displacement exists. Suppose then that the finger passed behind the cervix enters a sharp angle and beyond that a rounded body be felt, it is, not improbably, the uterus. But it may be a fibroid tumour. If under the same conditions no angle exists the condition is probably one of retroversion. It may, however, be one of antelexion, since considerable widening of an elongated cervix may feel like a fundus.

In antelexion the cervix will usually be found elongated. It should be traced upwards, and, if Douglas's pouch be empty and the cervix be in the vaginal axis the condition will almost certainly be found due to antelexion.

At the same time the size, density and mobility of the uterus, as well as the condition and positions of the ovaries and tubes, should be determined. It is almost unnecessary to state that normal healthy appendages lie constantly at either side of the fundus and nearly on the same level with it, whilst

diseased appendages are almost invariably prolapsed towards or into the pouch of Douglas. The position, and more important still, the mobility of the uterus must, therefore, in all cases be accurately settled.

With the finger placed firmly against the cervix and so far beyond it as possible the base of the broad ligament may be lifted. The cervix will swing slightly to that side and the ovary will come down in contact with the finger so that it may be felt. The tube and ovary may thus be examined.

Since sterility and dysmenorrhœa are due to various causes, treatment must necessarily be varied in character. In the absence of painful menstruation operation is only permissible for sterility when some morbid hyperæmia or congestion of the mucosa prevents proper engrafting of the ovum. In absolute or relative amenorrhœa with sterility it is justifiable to dilate the uterine canal for the purpose of applying the negative pole of the galvanic current to restore menstruation. Proof of the husband's potentiality should precede operation upon his wife. The gynecologist's duty is to establish normal menstruation and potential fertility, hence it is useless and unwarrantable to establish hopes of fertility by cervical dilatation when tubal occlusion renders conception impossible. Medicinal treatment is irrational when alone directed towards relief of pain. Stimulants, anodynes and narcotics damage the constitution, inculcate vicious habit and introspection, and lead, ultimately, to complete moral perversion and degradation.

Among married women few difficulties arise, since every opportunity for both is afforded. Unmarried females form two classes, and here the case is different, though it appeals forcibly to the physician and gynecologist. Marriage frequently but injudiciously recommended as a cure for dysmenorrhœa develops dyspareunia, and proves sterility, thereby causing disappointment and marital unhappiness. Our duty is clear; examination under anæsthesia will reveal the cause and afford opportunity for its removal. Postponement permits continual dread, recurrent pain and introspection, its only warrant being an occasional spontaneous recovery after marriage or in some obscure way. Sentiment must not warp judgment. Local treatment certainly means manipulation of sexual organs, but performed under anæsthesia will not more potentially direct attention to them than will being *hors de*

combat every month, with its accompanying varied forms of local treatment, drinking and drugging.

For one class of virgins work is a necessity, and pain must be borne until absolute compulsion forces them to seek the agent of relief in surgical procedure. Routine treatment, essential and permissible for them, should not be condemned as repugnant to those more fortunately circumstanced. Congenital antelexion with some stenosis will, most frequently, be found. Pessaries are useless, and forcible dilatation under strict antisepsis is alone satisfactory. In the absence of peri-uterine lesion the results are frequently excellent. The direction of the canal should be first accurately determined. The cervix being held by strong volsella, Hegar's metallic dilators should be slowly and gradually passed. Branching dilators are less satisfactory, though the process may be more rapid and less skill required. Perforation of the wall of the uterus could only result from gross incompetence or carelessness if Hegar's dilators be used. A few days rest is essential. This operation produces more shock than is generally supposed, and I have found it necessary, in two cases recently in hospital, to insist on ten days' rest in bed. Rest is also essential at the next menstrual period. I find it advantageous in cases of marked antelexion with correlative dysmenorrhœa and sterility to repeat the whole process after one or two periods have passed without the supervision of pregnancy. A general anæsthetic is not often necessary. I entirely disapprove the use of tents, stem pessaries, or the Wylie drain. After dilatation the uterus may, with advantage, be curetted. Pregnancy, should it follow, practically effects permanent cure.

When I find a long conical cervix and miniature external os, with antelexion and an ill-developed vaginal vault, I amputate the cervix by Marckwald's wedge-shaped incisions and restore its contour to normal shape. Single volsella grip the anterior and posterior lips of the cervix, which are divided laterally by knife and scissors. By excising a transverse wedge-shaped piece from each lip a deep groove is then closed by bringing its vaginal and cervical canal surfaces together by a series of silkworm or chromic gut sutures. I determine first and again afterwards the potency of the canal and the total depth, which should not exceed two and a half or three inches. The technique is simple,

little bleeding occurs, the risks are small, and a patent external os so essential in dealing with these cases of stenosis is obtained. I always, at the same time, dilate the internal os with Hegar's dilators. No drain is placed in the cervix. Simpson's method of introducing sutures offers many disadvantages. It is difficult to pass the needle through a dense cervix, to divide the cervix afterwards without cutting the sutures, and to pick them up where they cross the canal of the cervix. I entirely disapprove operations which divide the cervix in order to straighten, but really only to shorten, the canal, since the risks of hæmorrhage and sepsis are greater than in dilatation or amputation of the cervix, and the results are less satisfactory.

Retroflexion may cause obstructive dysmenorrhœa by kinking the canal, but stenosis such as exists in congenital ante flexion is rare. Probably it never occurs, since both body and cervix lie in the plane of the pelvic outlet. It is easy to understand how, in congenital cases, a short vagina keeps the cervix so low in the pelvis that the uterus cannot occupy any other position. Here pessaries entirely fail, and attempted use brings disrepute upon them and disappointment to the physician. Ventro-suspension following dilatation recently completely relieved a young woman in whom variously moulded pessaries had been inserted and caused pain or fell out of the vagina. It is unwise to promise absolute relief from orthopædic deformity, even though the results in most cases are eminently satisfactory. Backache and headache due to other causes not infrequently persist. Acquired retroflexion due to a fall or violent exertion, the bladder being full, demands immediate relief. Patient should be placed in bed, the bladder and bowels being as soon as possible relieved. In one case recently, after the above preliminaries had been attended to, I placed the patient in the knee-chest posture in order to displace, by gravity, the intestines. I then seized the cervix with a strong double volsellum and drew it down so as to straighten the canal. With my right middle finger in the rectum I pushed the body of the uterus out of the sacral hollow between the utero-sacral ligaments. No other instrument is permissible, nor should one be necessary. I inserted a vaginal pack for some days.

Unwarranted prejudice against pessaries now exists. Convinced that they fulfil their purpose in selected cases, I shall continue to use them. In 1906 I inserted one in a primi-

para who suffered acute retroflexion three months after delivery. The occurrence of menstruation caused intense pain, and at this period I saw her. After treatment, as in the case just described, I inserted a Hodge pessary. Three months later she conceived, and when the uterus had risen above the pelvis the use of the pessary was abandoned. Pregnancy went to term, when, under ~~postural~~ natural rest, regulation of the bladder and bowels spontaneous cure resulted. Operation was thus averted. In cases of congenital or acquired retroflexion I always, when practicable, test the probabilities of cure from operation by inserting a pessary and, by its use, keeping the uterus in a position of ante flexion for some weeks prior to operation. When adhesions preclude replacement I operate without delay. Where constant discomfort, 'bearing down' and pain are suffered upon exertion or during menstruation, where walking causes backache and pain in the abdomen and thighs, where constipation is obstinate and defæcation difficult and yet the uterus can be raised from its faulty position, one may unhesitatingly promise great relief from operation. Results following ventro-suspension of the uterus are very convincing. The operation permits intra-pelvic inspection and removal of adhesions, and when these are slight a permanent result is produced. A womb retroflexed and tied down by extensive adhesions due to salpingitis and ovaritis must itself be useless, and is probably diseased. Suspension of such an uterus would be difficult and purposeless, and the danger from intestinal adhesions following the operation would be great. It should be left *in situ* or entirely removed.

The number and variability of other operations for correction of posterior displacements of the uterus is great and sufficient proof that no ideal procedure has yet been established upon lines which aim at shortening of the round ligaments. I shall not deny that in some cases the procedure may be applicable; but my own experience convinces me that ventro-suspension of the uterus is an exceedingly safe and satisfactory operation, and I strongly favour it. I am equally convinced that its chief virtue lies in the fact that by temporarily placing the uterus in an over-corrected position, opportunity is granted and the conditions rendered favourable for diminishing the weight of the organ and for contraction of all its natural supports.

REFERENCES.—1. *Aust. Med. Gazette*, Nov. 20th, 1906. 2. *Amer. Journ. of Obstetrics*, 1907.

**FIBRO-CARTILAGINOUS TUMOUR
OF DURA MATER.**

By J. C. Verco, M.D., F.R.C.S., and B. Poulton,
M.D., M.R.C.S., Adelaide.

THE patient is a single female, 18 years of age, whose dark skin and physiognomy indicate some admixture of negro blood. Admitted under Dr. Verco's care, it was found that she has suffered during the last four months from considerable pain in both supra-orbital regions, mostly on the right side; that for more than three months the sight of the right eye has failed, and that quite recently the left has become affected; that she has experienced some headache as long as she can remember, and that it has increased in severity during the last six years. Vomiting not infrequently occurs, and she often has attacks of giddiness at irregular intervals. She fell down a few days ago, and was unable to rise for a few seconds. During the years 1904 and 1905 occasional definite convulsive fits occurred, but none have been experienced for two years.

Immediately before each fit tingling was always felt spreading from the left hand up the left forearm and arm, and involuntary micturition was constantly noted. She has been under medical treatment for a long period.

The general nutrition and development was found to be good, the mental faculties unimpaired, and the disposition cheerful. There was no facial or other paralysis, nor any abnormality of sensation. Ocular movements were normal, both ocular discs were enlarged with blurred margins, the vessels scarcely visible. There was no asymmetry of the head.

Reflexes.—Pupils: left active to light, right inactive, acts consensually; left arm active, right arm diminished; left knee-jerk active, right knee-jerk diminished; left ankle-jerk active, right ankle-jerk absent. Plantar reflexes not obtained.

There being some suggestion from the mother's personal history of the possibility of hereditary syphilis, mercury and iodide of potash was given for a month without appreciable effect, and the diagnosis of tumour made on admission was maintained.

On consultation, it was decided to operate in two stages.

On March 6th, half an hour after the hypodermic injection of morphia, gr. $\frac{1}{4}$, under chloroform, the arm centre on the right side

was exposed with the large trephine, the dura bulged, but pulsated, and was reflected, when a hard mass was felt under the mesial and anterior parts of the opening, but its limits could not be defined. Bone was cut away up to the sagittal suture, and a dull white tumour attached to the dura and dipping vertically downwards about $1\frac{1}{2}$ inches was partly seen, partly palpated. Its median boundary could not be defined. Nothing further was done, and the wound was closed with drainage.

Left hemiplegia was noted two hours afterwards—face, arm and leg; and an epileptic seizure occurred ten hours after. Eleven days after the preliminary exploration partial hemiplegia still persisted, and the left knee could only be raised a few inches. Fingers were counted at a distance of three feet from the left eye.

March 17.—Under morphia and chloroform anaesthesia the scalp was again reflected and the cranial opening enlarged to the median suture without injuring the superior longitudinal sinus. The median limit of the tumour was not reached, and it was deemed to be adherent to the falx. A longitudinal vertical incision parallel to and near the falx was carried through the dura and underlying tumour, of which a mass weighing 235 grains was removed. The growth resisted the knife, and the section was completed with strong, blunt-ended scissors. It was dense and in part calcareous.

The wound was closed without drainage, and moist biniodide gauze used in dressing. Good union of the flap has followed. Much pain occurred during the first few days; there was some delirium and occasional clonic movement of the left limbs, with pain, especially in the arm. During the second week after removal the pain, delirium, and high temperature, with involuntary micturition, caused great anxiety, but throughout nourishment was taken well. The febrile condition soon subsided, but the hemiplegia persists. There is now total loss of vision, and Dr. Symons, who kindly made an examination, reports white discs with ill-defined edges—a disappearing optic neuritis. The mental condition is unimpaired. There is no headache or complaint of pain. Appetite is good. The facial paralysis has disappeared. There is protrusion of the scalp over the opening in the skull, and a very slight but continuous oozing of cerebro-spinal fluid from two minute openings in the cicatrix. Dr. H. C. Wilson, resident

pathologist at the hospital, reports that, microscopically, the basis of the specimen is a densely vascular inactive fibrous tissue, in large part converted into cartilage of a lowly organised type which has in many places undergone partial calcification.

The prognosis here is very bad. There is increasing propulsion of the brain, continuous though slight escape of cerebro-spinal fluid, hemiplegia, total blindness; a portion of the tumour remains. There is, however, a cessation of the formerly persistent headache, and the patient is wonderfully bright and cheerful.

P.S.—June 2nd. There is now less protrusion, complete cicatrisation and no oozing. There is some return of motor power in the leg, and complete relief from headache.

(Read before the South Australian Branch of the British Medical Association.)

HYDATID OF BRAIN.

By J. C. Verco, M.D., F.R.C.S. etc., and
B. Poulton, M.D., Adelaide.

Boy, *æt.* 14, working in a factory, born in South Australia. Admitted August 20, 1907, suffering from partial paralysis of the right side, but able to walk a few steps with difficulty; is well nourished and fairly intelligent, with some evidence of deficient memory. Coming under observation in Dr. Verco's ward it was found that the right foot and ankle has been weak for three months, that during the last six weeks ascending weakness of the right arm has been present, and that there has been gradually increasing loss of sensation of the whole of the right side of the body. There has been occasional vomiting, having no apparent relation to the taking of food, occurring sometimes at night and preceded by nausea. For two months he has experienced constant frontal headache of a dull, aching character, with weekly exacerbations, when the pain also involves the vertical and occipital regions. Nocturnal pain sometimes prevents sleep. Memory has failed markedly during the last month, and though his sight is fairly good and he can read the time with either eye on a distant clock dial, he has noticed double vision for the last ten days. The appetite is alleged to be good, the bowels tend to constipation; there is no urinary disability and no cough. It is not known whether he has lost weight. No abnormality of heart, lungs or abdominal organs was found; the temperature was normal; the pulse 64, regular, of good

volume and force. The sensations of taste and smell were normal; the hearing was equally good in both ears.

Very definite asymmetry of the skull was noted, the left frontal region being prominent, with distinct protuberance of the left anterior parietal surface. There was decreased tactile sensation of the left side of the face, and slight facial paralysis, equal pupils, reacting equally to light and accommodation, alternating internal non-paralytic strabismus; diplopia at distances over 12 inches; double optic neuritis, most marked in right eye. Sensation on the right side of the abdomen was decreased; there was no superficial epigastric reflex on either side. All movements of the right arm much impaired, especially of the hand and wrist; grasping power feeble, and does not register on dynamometer. The wrist, biceps and triceps jerks exaggerated; tactile and heat sensibility decreased. Very little power of movement of the right lower extremity. Reflexes exaggerated. Sensation decreased, as in the arm. These abnormalities were not present in the left limbs, which showed no wasting.

He can stand up on the left leg alone, but sways when the eyes are closed. Is unable to stand on the right leg. After examination in the erect posture felt sick and vomited.

Dr. Verco diagnosed tumour, probably hydatid, and transferred him to the surgical ward. Concurring in the diagnosis, I explored the cranium. With a view to diminish lung bleeding, calcium chloride gr. xlv was given in three doses, and gr. $\frac{1}{2}$ morphia half an hour before the first operation, which was completed in two stages.

On September 7th, under chloroform anaesthesia, a large disc of bone was removed over the centre of the Rolandic fissure (left). The bleeding from scalp and bone was very considerable. The brain bulged on incision of the dura. The bone disc was replaced and the scalp flap sutured in place. During the next four days there was complaint of much headache and some vomiting. Under chloroform the area was again exposed, free hæmorrhage following the turning down of the scalp flap. On removing the disc of bone, brain substance bulged forward and a cyst came into view, and rupturing, evacuated its clear fluid contents. The cyst was easily drawn out with forceps; gentle irrigation dislodged two smaller cysts unbroken. On introducing the index finger a large tense cyst was felt; it ruptured when touched, and was removed. Two smaller cysts followed. The resulting cavity ran

mostly forwards and rapidly diminished in size. The meninges were sutured, the disc not replaced, and the wound closed, a very small rubber drain, being used for 24 hours. Bromide of potash was given every four hours; pain was extreme, and necessitated morphia hypodermically. The temperature, which had been almost normal up to the second operation, rose the first night to 101.4° , reached a maximum of 105° on the seventh day, and vacillated between 100° and 104° for the next eight days, when death occurred.

Post-mortem examination showed a hernia of small size opposite the trephine opening, which was over the mid. Rolandic area. There was no naked-eye evidence of spreading inflammation in brain or meninges. Another hydatid cyst was found in the right frontal region, abutting on the upper surface at the superior horizontal frontal fissure, in size about that of a walnut, and yet another as large as a billiard-ball in the right hemisphere of the cerebellum. It lay in close contact to the inferior surface. A small hydatid was found in the heart muscle. The right frontal cyst was well in front of the motor area.

The severity and distribution of his headache is noteworthy in relation to the position of the right frontal and cerebellar tumours, as also his marked instability in the erect posture. The presence of the undiscovered cysts may have been a factor in the very rapid filling up of the cavity made on evacuating the cyst, which was removed. The small cardiac cyst was not suspected.

(Read before the South Australian Branch of the British Medical Association.)

FRACTURE OF VAULT—INSANITY.

By B. Poulton, M.D., Adelaide.

THE following case records an instance of exploration for insanity following recent injury. The subject is a clerk, 49 years of age, who received a blow on the head on February 28th of this year—that is, about five weeks before admission to the Adelaide Hospital.

His wife states that when working in a timber yard a beam of wood seven feet long and ten inches in diameter, in falling from a height of 25 feet, struck his head. He was removed unconscious to a neighbouring hospital: remained unconscious for several days, received treatment for a month, and was then sent to the Lunatic Asylum.

Dr. J. F. Harris, of Port Pirie, has kindly furnished a note, from which it appears that an hour after the accident he was in the local hospital semi-conscious, very restless and noisy, with equal medium-sized pupils, reacting to light. A probe inserted to the bone did not disclose any fracture. For four days he remained in a noisy state of semi-consciousness and then passed into a typical state of cerebral irritation, lying with his legs curled up, irritable when disturbed, and suffering from photophobia, with equal, active, and contracted pupils; knee-jerks exaggerated, especially the right. The symptoms of cerebral irritation subsided gradually, and at the end of the second week he became fairly sensible, but could not be induced to concentrate his attention, and wandered when questioned. He subsequently became violent, and was sent to the asylum.

He has had no vomiting or convulsions, but has complained of severe headache, and has lost flesh. His general health has always been good. He is not a heavy drinker, and was not insane before the accident. He walked into the hospital ward, and remained under observation for three days before operative interference.

He is a spare, rather anxious-looking man, apparently less than his age. There are several pressure sores about the ankle, two definite cicatrised scalp wounds rather above the middle of the left Rolandic line, the longer about $1\frac{1}{2}$ inches in length, and a granulating wound about an inch long in the immediate vicinity; it is almost completely cicatrised and quite superficial.

The temperature is normal, the pulse 104, of fair volume and tension, the pupils equal and mobile. He is restless, excitable, difficult to restrain in bed, and is at times very talkative and troublesome. He is quite unable to give any account of his accident and illness, and wanders off into wildly impossible incidents of his previous life. He sometimes sits up in bed and makes long, absurd harangues to the other inmates of the ward.

No thoracic or abdominal lesion was discovered. The urine, which is sometimes passed in bed, is alkaline, of specific gravity 1005, and free from sugar and albumin. Sedatives had but slight quieting influence; bromides, morphia and hyosine were all used.

Dr. J. C. Verco, who kindly saw him in consultation, drew attention to some diminution in the muscular power of the right leg and arm, and noted optic neuritis (left). Fracture

of the parietal bone with probable pachymeningitis was diagnosed.

On April 7th, half an hour after the hypodermic injection of a quarter of a grain of morphia, under chloroform anaesthesia, after *cauterising and cutting out the granulating wound*, a large crescentic flap was thrown down, including the area of scalp injury. Two fissure fractures of the left parietal bone were exposed, the upper one about two inches in length, horizontal and distant about three and a-half inches above the external auditory meatus, the other running vertically downwards from its centre an undetermined distance, it was followed to near the margin of the squamous suture. A large disc of bone was removed by Horsley's trephine. There was no depression or splintering of the inner table. The dura was in part dark coloured, but there was no extra dural blood-clot. The membrane was very thick, but not adherent to the arachnoid or pia. A very small quantity of clear cerebro-spinal fluid exuded on reflection of the dural flap. There was but slight projection of the exposed brain, which pulsed normally and presented considerable distension of its vessels. The dura was carefully sutured with sterilized catgut, and the wound closed; a small rubber drain was inserted for 24 hours owing to the very considerable vascularity of the meninges and scalp. Antiseptic dressings (biniodide damp gauze) were applied, with ice, to the head. Soon after recovery from the anaesthetic he became difficult to control—had in fact to be strapped down,—suffered from hallucinations and delusions, and exhibited occasional clonic movements of the right fingers and arm. It was necessary to give an occasional dose of morphia, and to purge freely with calomel and croton oil.

On the ninth day, after a fair night's rest, the mental condition was slightly improved, and progress has been continuous since. To-day, 23 days after operation, he exhibits no mental abnormalities, except slight deficiency of memory and a tendency to garrulity. He eats and sleeps well, is able to walk and to read. The wound healed by first intention. P.S. June 2nd. His mental stability is now completely restored.

(Read before the South Australian Branch of the British Medical Association.)

The foundation stone of the Mater Misericordiae Hospital on College Hill, South Brisbane, was laid by Cardinal Moran on May 24th. A sum of £2500 was raised, making £4000 with the money already in hand.

A CASE OF EXTRADURAL HÆMORRHAGE. OPERATION.—RECOVERY.

By H. Gilbert, M.B. (Melb.), F.R.C.S. (Eng.), Adelaide.

THIS case, which I am enabled to publish through the courtesy of Dr. R. H. Marten, presents some interesting and unusual features which I think make it worth recording.

E. P., *et.* 6 years, fell from the top of a 10 ft. wall on to her head on Friday, October 18th, about 5 p.m. She was unconscious for quarter of an hour to 20 minutes, but was quite conscious when seen by her mother about half an hour after the accident, and complained of pains in the head and neck. An hour after the accident she began vomiting and continued to do so frequently through the night, both on and independently of taking nourishment. She was very restless and had no sleep. She was first seen by Dr. Marten at 10 a.m. on Saturday, October 19th. Condition: Perfectly conscious and rational; a little irritable and complains of great headache. No paresis, no rigidity, and there have been no convulsive movements. Pupils equal and reacting normally; no strabismus. Knee-jerks not obtained. Plantar reflexes flexor in type. Temperature 100°F., pulse 80, soft, intermitting every third or fourth beat. There is a large and very tender hæmatoma over the left parietal region. A small bruise is present over the lower part of the sacrum. No abnormality found in either chest or abdomen. She has had varicella recently, and still presents a large scab about the centre of the vertex. Seen again at 5 p.m.; temperature normal; condition much the same, and vomiting has continued in spite of sedative mixture.

Sunday, October 20th, 9 a.m.—Vomiting has persisted; has been very restless and has not slept; complains much of head. Bowels have been well open by enema; passes urine naturally. The headache is general but is most intense in the left frontal region. There is no paresis, and there have been no convulsive movements. No visual or aural defect can be detected. Knee-jerks not elicited. Plantar reflexes flexor in type. Pulse 80-90, intermitting as before. Temperature normal. Seems rather more irritable. Ordered head to be shaved, to continue sedative mixture, and to try plasmon.

Monday, October 21st.—Has continued vomiting; has been very restless and has not slept; has complained greatly of head. She is *distinctly more irritable, lies flexed* and has developed *photophobia*. On the shaved scalp

the hæmatoma is found to be confined to the boundaries of the left parietal bone, except posteriorly where it extends to the superior curved line. It is *thought to have increased in size*. Bruising has appeared over the mastoid process, and extends forwards on to the coucha and cranial aspect of the pinna. Pulse 80, soft, *more markedly intermitting*. Temperature normal. No further signs have developed. An attempt to examine the eyes was not very successful, only a fleeting glimpse of the *left* disc being obtained; as far as could be judged it was normal. An exploratory operation was decided upon.

At 3.15 p.m., under chloroform, a large curved incision was made, commencing anteriorly $2\frac{1}{2}$ inches above and 1 inch behind the left external angular process of the frontal bone, and passing backwards $4\frac{1}{2}$ inches above the pinna and terminating on a level with and $1\frac{1}{2}$ inches to the left of external occipital protuberance. The flap this formed was turned down and a large hæmatoma, which was mainly sub-pericranial, was evacuated. In the posterior part of the surface thus exposed a fissured fracture was discovered commencing about one inch behind and slightly below the most prominent part of the parietal eminence and running obliquely backwards and downwards in a line midway between the pinna and the external occipital protuberance. Rather more than an inch of the fracture was exposed; it widened as it disappeared from the field of operation and dark blood was seen issuing from it. The incision was prolonged backwards a little to give more room for the application of a 1-inch trephine. A disc of bone was removed just to the mesial side of the fissure; a quantity of dark blood-clot presented in the trephine hole; it was not pulsating; it was scraped and washed away, and the dura immediately expanded and showed the brain pulsations. The area occupied by the clot was considerably in excess of that exposed in the trephine opening; it extended chiefly in a direction downwards, backwards and outwards, and very little in front of the anterior boundary of the opening; its total area was approximately 2 to $2\frac{1}{2}$ square inches. The portion of the dura exposed showed no injury, and there was no evidence of hæmorrhage beneath it, so it was not opened. A drain consisting of half a rubber drain tube and a gauze wick was passed just under the anterior edge of the trephine opening, and the end brought out of the posterior angle of the wound, and the wound closed with silkworm gut sutures.

Towards the close of the operation the pulse rate rose to 180; it fell to 140 shortly after she was put back to bed. She vomited a little after the anæsthetic, and again shortly after 5 p.m. after being given a drink. She was extremely restless after coming out of the anæsthetic, and at 6.30 p.m. was given 1-40 grain morphia hypodermically. At 7.30 p.m. the pulse was 140 and intermitting. At 7.45 p.m. she vomited a large amount of watery fluid. By 10 p.m. the pulse had dropped to 112, was of good quality, but was intermitting.

By 6 a.m. the following morning it had fallen to 100 and was still intermitting. Temperature normal. The patient had a very restless night, only sleeping one hour in spite of the morphia.

October 23rd.—Wound dressed and drain removed. Patient very well except for irritating cough. Temperature normal. Pulse 100 to 104 and still intermitting.

On the evening of October 24th temperature rose to 101 and the pulse to 136, and a measles rash appeared on the face and neck.

The following day the rash was out all over the body, and in the evening the temperature rose to 101.6; pulse 132; cough troublesome and some headache.

The next day, October 26th, the temperature was normal; pulse 114, intermitting. The sutures were removed from the wound, which had healed by first intention.

From this time on the recovery was uninterrupted, the temperature remaining normal; the pulse rate remained at 102 to 104 till November 1st, when it fell to 90. The intermissions, which occurred at every third or fourth beat, at first became less frequent, and on the date of her discharge from hospital the pulse rate was 90 and regular. Two days after the operation the left knee-jerk was obtained, but subsequently neither could be elicited.

The child reported herself on November 21st, and was apparently normal in every respect. There had been no headache since that noted on October 25th, which was probably due to the exanthem.

Remarks.—Presuming that the hæmorrhage occurred from one of the terminal branches of the posterior division of the middle meningeal artery, the case has considerable interest from its markedly atypical course. The complete consciousness of the patient, the very gradual onset of symptoms of meningeal irritation of a definite nature, by which I mean the photophobia, and the entire absence

of motor sensory or of special sense phenomena till the photophobia developed on the fourth day after the accident, in no way accord with the text-book description of meningeal hæmorrhage.

One solution of the anomalous course of events occurs to me: It was noted that the hæmatoma was mainly sub-pericranial in type and that blood issued from the exposed fracture. It is probable that this leakage continued till the pressure within and without the skull became equalised, and then the intracranial effusion coagulated, producing irritative symptoms which might have progressed to motor phenomena if the condition had not been relieved by operation.

The course of this case is perhaps complicated by the fact that the child was in the incubation stage of an exanthem; but I think that two symptoms stand forth prominently and call for some discussion, viz.: 1, the persistent vomiting; 2, the marked intermittency of the pulse. The vomiting could have been caused either by meningeal irritation, by rise in intracranial pressure, or by both, and is not, I think, likely to occur to such a marked extent in uncomplicated cases of concussion or laceration of the brain.

Although the intermittency of the pulse persisted for several days after the operation, I think it must have been caused by the rise in intracranial pressure affecting the centre in the medulla, which took some time to readjust itself after the pressure was relieved.

What value can be attached to these two symptoms as a means of early diagnosis and therefore of early surgical interference?

(Read before the New South Wales Branch of the British Medical Association.)

CASE OF EXTENSIVE SYPHILITIC NECROSIS OF THE SKULL, ILLUSTRATING AN EASY WAY FOR REMOVING SUCH SEQUESTRA.

By Thomas Flaschi, M.D., Ch.D. (Pisa and Florence),
Hon. Surgeon to the Sydney Hospital.

SPECIMENS of syphilitic necrosis invading a large extent of either the frontal or parietal bones are to be found in every pathological museum. It does not follow that they are very common in individual surgical practice. During 32 years of surgical work it has only occurred to me three times to have to remove large portions of the skull, hopelessly necrosed as a result of gummatous infiltration. A common feature of these cases is the absolute uselessness of treatment by the usual specifics. Once necrosis has set in, the sooner the sur-

geon decides to remove the affected portion of bone, the better for his patient; for not only is this affection painful, conspicuous and disgusting, but it is an ever-present source of pyogenic disease in distant organs.

In studying the question of operation, the following points are an encouragement to operate:—1st. If the scalp is freely reflected on all sides, beyond the affected portions, it is easy to note the difference in colour and appearance between the worm-eaten blackish sequestrum and the surrounding healthy bone. 2nd. The dura is, as a general rule, very thickened, and separated from the necrosed bone by a layer of gummatous tissue, so that with moderate care there is little danger of injuring the brain. On the other hand there are the following difficulties to be met with in the operation:—1st. All round the sequestrum it generally happens that the margins of the healthy bone have undergone osteosclerosis and new bone formation, causing great thickening and eburnation of them. To saw or chisel or trephine through them is a long and hard work for those surgeons who have not at hand an electric or compressed air motor saw. 2nd. The necrosed bone to be removed is generally large, and an extensive loss of skull remains. Furthermore, the scalp, as a general rule, has ulcerated over the sequestrum, and after removal of this a large gap in the integument leaves the dura mater exposed. This difficulty, however, can be easily overcome by skin-grafting, once the sequestrum has been removed, and by the wearing of suitable protective plates.

In this third case of mine, that I have the honour to present to you to-night, I was able to find a method for easily overcoming the first difficulty, that is, the removal of the sequestrum.

My patient is a boiler-maker, of 46, affected by his trade deafness, who contracted syphilis 20 years ago. Two years ago was treated by me for a non-tubercular osteitis and necrosis of the right humerus, which, after gouging, healed up, and has remained well ever since. Twelve months ago was struck on the forehead by a piece of iron, which caused a painful swelling. This gradually ulcerated, and began to discharge, leaving a piece of bare, worm-eaten, black bone in the middle of the forehead, about five centimetres in diameter. (See Fig 1.) A probe could be pushed under the edges for two and more centimetres all round. The necrosed bone was firmly attached to the remainder of the skull. In both upper eyelids, under the superior margin of the orbits, there

was a fistula discharging pus. The patient complains of occasional attacks of severe pain in the head. No mental symptoms, no epileptical seizures.



FIG. 1.

On the 9th April, 1908, I operated him under chloroform. A semilunar incision was made about one inch from the edge of the bare bone. This was divided in the middle by



FIG. 2.

an incision one inch long running in a sagittal direction, and by means of a periosteal elevator I lifted up two semi-circular flaps. The normal bone was easily distinguished from the diseased by the white colour

and smoothness. It was interesting to notice two narrow serpiginous circinate projections of necrosed bone running symmetrically from the main surface of the sequestrum down to each orbit. It was an eloquent proof that the laws of symmetry and serpiginous advance, so frequently noticed in syphiloderma, hold good even when syphilis attacks bone.

To safeguard against the risk of wounding the longitudinal sinus I then applied a half-inch trephine a little to the right of it. Owing to the thickness and extreme hardness of the sound bone surrounding the necrosed, it was a long and laborious task to accomplish. On passing then a small flexible spatula beneath the bone, I found that the dura with the sinus were quite free from the bone, and that I could have spared myself this operative step. I passed then an elevator through the trephine opening, and tried to prize up the sequestrum, but it was as firm as a rock. Knowing then how long and fatiguing it would have been to saw or chisel through the surrounding healthy bone, and having found that the dura was well detached and free from the sequestrum, I decided to saw through it. This I did with an ordinary large amputation saw, and sawed through five lines, forming a pentagon, as close as possible to the margin of the sequestrum, as can be seen in Fig. 2. The sawing through diseased bone was very easy, and when finished I had no trouble to prize up the pentagonal fragment. I also found it very easy, once this was off, to tear away, by means of a Williams' rongeur, all the edges of the sequestrum that had remained attached to the sound bone, including the two serpiginous projections of necrosis that had extended in the orbits.

The patient has been much more comfortable since, and is now quite easy. I hope to show him to you at one of our next clinical meetings, when I shall have closed the gap in the integument by means of skin-grafts.

On the base of this experience I urge surgeons who may meet with similar cases not to trouble to trephine or chisel through the peripheral thickened and eburnated healthy bone, but to attack boldly, with a common saw, the necrosed bone, following four or five lines which will include the chief area of it, then to introduce one or two thin steel chisels through the saw lines and prize up the sequestrum. The fringes of the necrosed bone adherent to the sound will be easily detached from inside out either with rongeur or sequestrum forceps.

(Read before the New South Wales Branch of the British Medical Association.)

REVIEW AND NOTICES OF BOOKS.

CANCER. By G. Sherman Bigg, F.R.C.S. (Edin.), M.R.C.S. (Eng.), L.S.A., late Surgeon-Captain, A.M.S. Crown 8vo, number of pages, 95. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1907. Price, 3s 6d net.

This little work is interesting, but not altogether convincing. The author writes apparently for the general public and not for the medical profession, for no new scientific facts are brought forward. It is sought to prove that cancer is curable, but the author's definition of cancer is not quite clear. He appears to include the earliest stage of benign tumours which frequently become malignant. The publisher's work has been well done, the paper, type and binding being all that could be desired.

DISEASES OF THE LUNGS: designed to be a practical presentation of the subject for the use of students and practitioners of medicine. By Robert H. Babcock, A.M., M.D. Octavo, pp. xix+809, with 12 coloured plates and 104 text illustrations. New York and London: D. Appleton & Co., 1907. Sydney: Angus & Robertson. Price, 27s 6d.

In 1903 Dr. Babcock published a book on Diseases of the Heart and Arterial System, and the companion volume on the Bronchi, Lungs and Pleuræ now appears. Though the work is a large one, Dr. Babcock has found no room for discussions on anatomy and physical diagnosis; and while he quotes freely, and often at great length, from Fraenkel, Fowler and Godlee, Williams, Huchard and others, yet he gives no references and adds no bibliography. It must not be thought, however, that the work is a compilation, as the author draws largely on an extensive personal experience and expresses definite personal opinions. A great deal of recent work receives due notice—e.g., that on opsonins, X-rays in the detection of early tuberculosis, the distinction between "mucinous" and "fibrinous" forms of plastic bronchitis, the possibility of mistaking hydatid for pneumonia, and especially Arneth's valuable researches on the neutrophile leucocytes. The account of cytodiagnosis of pleural effusions is, however, scanty, no mention being made of inocopy; and cauterisation of the nasal septum in asthma has been missed altogether. In the treatment of pneumonia Dr. Babcock rightly emphasises the essential importance of fresh air. "Even though the season be winter and the atmosphere of the room become uncomfortably cold for the attendants, the windows ought to be open nevertheless"; drugs play a subsidiary part; the enthusiasm which recently raged through America for the internal administration of creosote in large and frequent doses has now subsided.

In view of the discussion anent the health of "rock-choppers" in Sydney, it is interesting to note that he regards pure pneumoconiosis as a rare affection, stating that he himself has never seen a true case.

In a book on lung disease the chief interest centres on tuberculosis, and here Dr. Babcock has done well, though he might perhaps have done better still. He evidently has a keen appreciation of the difficulties of early diagnosis, as he notes that the first symptoms may be referable only to organs other than the lungs—e.g., dyspepsia, loss of appetite, languor, low pulse tension, erethism, anemia (*pseudo-chlorosis tuberculosa*, especially when associated with Arneth's changes in the leucocytes), loss of weight; and he states that the tubercles forming in the lung at this period "cannot be ordinarily detected by physical examination"; yet he illogically concludes that a definite diagnosis can be

arrived at without recourse to tuberculin. His views on mixed infection are sound, and to it he ascribes the hectic fever of advanced cases, yet curiously enough he does not mention the influenza bacillus among the causal agents. He recognises the importance of dividing the disease into stages, yet he neglects Turban's classification, recommended three years ago by the American National Association for the Prevention and study of Tuberculosis. He insists on the importance of destroying sputum, yet he omits the necessity of teaching patients to use a handkerchief when coughing, so as to intercept invisible "respiratory spray." He advises rest and morphia as the best agents for arresting hæmoptysis, yet he omits *amyl nitrite*, and extols *specacuanha ad nauseam*, *atropine sulphate* in doses of 1-50 or 1-25 of a grain, and *suprarenal extract* "theoretically at least." He should know that "theoretically" suprarenal extract is contraindicated as likely to increase blood-pressure and hæmorrhage. He rightly emphasises the misleading disappearance of physical signs in some advanced cases, which may lead one to overlook a cavity, or even to imagine that one previously recognised has healed.

The coloured plates and the illustrations, especially the photographs of patients, are generally excellent. The index is full. The paper, printing and binding are a credit to the publishers. Altogether, Dr. Babcock is to be congratulated on the production of a valuable work.

PRACTICAL FEVER NURSING. By Edward C. Register, M.D. Octavo, pp. 352, with 65 illustrations. Philadelphia and London: W. B. Saunders Co. 1907. Melbourne: Jas. Little. Price, 10s 6d.

This curiously misnamed book consists chiefly of a description of the ætiology, morbid anatomy, symptoms, diagnosis, prognosis and treatment of some 20 infectious fevers. Thus, under malaria we find an article on mosquitos with the distinctive points between culex and anopheles; under typhoid, a discussion on leucopenia and Widal's reaction and the differential diagnosis of acute miliary tuberculosis and malignant endocarditis; and another on the values of quinine, salol, antipyrin and phenacetin. There is a fairly good account of disinfection by steam, yet under the heading "Practical duties of the nurse" we find "bedding, clothing, napkins, handkerchiefs, etc., must be sprinkled with a solution of bichloride of mercury (1:1000) before being sent to the wash"; and under "hypodermic syringe" "it is doubtful if the nurse is ever justified in giving this combination (i.e., chloral gr. 5, morphine gr. $\frac{1}{4}$) hypodermically, without being directed to do so by a physician."

There are no directions for the use of the bed-pan, although we are told that the effort of emptying the bowels in the recumbent posture causes a greater rise of blood-pressure than occurs "when the patient is taken up into a semi-recumbent position." Micturition is referred to as "when the kidneys act." The directions for prophylaxis of tuberculosis are better than those found in many larger English books.

Were the practical details more complete and the title "Fever: a Short Account for Nurses," we should have little but praise for the work. The publishers have done their part excellently, the printing, type, paper and binding all being first class.

For the first time in the history of the Melbourne University the number of its students is now over 1000. This fact was reported to the council by the registrar, and the vice-chancellor, Sir Henry Wrixson, expressed pleasure at the progress made by the University.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH JUNE, 1908.

RATIONAL TREATMENT.

WE must confess that in the past a great deal of medical treatment was purely empirical and consisted in the employment of many drugs for the relief of symptoms whose pathological basis was unknown. Fortunately with the great advance in our knowledge of the etiology and pathology of diseased conditions, we have arrived at a clearer knowledge of the indications for treatment. And since, thanks to the labours of physiologists and pharmacologists, we know more of the action of drugs, we can use these agents more rationally.

Probably all of us have passed through various stages of scepticism as to the value of drugs, and it is significant that three distinguished men have given utterance to diametrically opposite opinions on this question. Dr. ROBERTS BARTHOLOW, in an address before the Medical and Surgical Faculty of Maryland, U.S.A., in 1876 said, "Good practitioners are always found to be men entertaining the greatest confidence in the power of medicines." Professor OSLER, in a recent address to London medical students, warned them to be "sceptical of the pharmacopœia," and that "the best doctor knows the worthlessness of most drugs." And again quite recently in an address before the Medical Society of the State of New York, entitled, "Nihilism and Drugs," Dr. A. JACOBI referred to Professor OSLER's address, and repudiated the spirit of Nihilism which characterised it, and described "expectant treatment" and "malpractice" as "the sin of omission which not infrequently rises to the dignity of a crime."

We must all agree with Professor OSLER up to a certain point, that the *vis medicatrix nature* must be reckoned with in every case, and that the meddlesome interference with the course of nature by the employment of many drugs is not only worthless but positively injurious. But we cannot agree with him in his sweeping assertion on the "worthlessness of most drugs." We know that many drugs and preparations formerly employed, which found a place in the British Pharmacopœia, have been omitted from recent editions, and have been abandoned in favour of newer remedies, but we think with not altogether the best results. The truth is, we cannot afford to ignore the practical experience of older practitioners whose faith in drugs was unbounded, and though we are always in danger of drawing *post hoc propter hoc* conclusions when the precise value of a drug is in question, we do well to remember that good results have been obtained in the past by the use of drugs of whose value we may have been sceptical. For example, sarsaparilla is a drug, of whose action in the body we know practically nothing definite, which was much used in former times, but had latterly been almost abandoned until Sir FELIX SEMON drew attention to its great value in certain cases of malignant syphilis. Antimony is another drug which was much employed in past generations, but which is hardly ever prescribed nowadays; and yet, according to the experience of a recent writer in the *British Medical Journal*, it is a drug which has not deserved such a fate. It is needless to refer to the extreme value of many drugs which form a necessary part in the medical man's armamentarium, such as opium, quinine, mercury, iodide of potassium, digitalis, strychnine, etc.; and while we know a great deal more than our forefathers of the pharmacological action of these drugs, we must admit that our use of them is often empirical.

Our aim must ever be towards the attainment of rational treatment in every form of disease, and to this end we value the assistance of the bacteriologist and the physiologist, who have given us specific remedies which we use in a strictly scientific manner—antitoxin in diphtheria, tuberculins in tuberculosis, antistreptococcic serum in septicæmia, thyroid extract in myxœdema, and so on.

But rational treatment consists in much more than the administration of specific remedies. It embraces the whole question of treatment based on etiological and pathological indications, and a consideration of these will often show that attention to ordinary hygienic laws, the correction of faulty habits, a judicious use of the articles of food and drink, healthy recreation and pure air, will do much more for a sick person than all the drugs or preparations of the pharmacopœia, or of the modern drug manufacturer. And if Professor OSLER's address will stimulate the rising generation of medical men to pay more attention to these essentials of rational treatment than has been the case in the past, we can forgive his Nihilistic attitude towards our old friend the British Pharmacopœia.

THE TREATMENT OF GASTRIC ULCER.

CONSIDERABLE discussion has taken place in recent years in different countries as to the best method of treatment of patients suffering from gastric ulcer. Some have maintained that this condition must be regarded as one always requiring surgical treatment, while others are equally positive that as good results are obtained from purely medical treatment. It is, however, most probable that, as in all cases where divergent opinions are held by opposing schools, the truth lies in a medium course, and that we must recognise

that symptoms may arise which urgently demand surgical treatment.

We must remember that the actual diagnosis of gastric ulcer is not always easy. It has been shown that only a small proportion of patients suffering from localised pain after food and hæmatemesis have a condition of true ulceration in the stomach. We know, moreover, that gastric ulcer is often a comparatively speaking latent disease—that patients may present only the symptoms of an apparently functional dyspepsia until sudden perforation occurs, and the true nature of the disease becomes apparent. Hence we must assume that there are cases of this nature which run their course without any of the specific symptoms usually associated with this condition, and in which the ulcer heals with no specific treatment. These facts show that statistics based on any special line of treatment are unreliable, unless the cases used have been proved to be true ulcer either on surgical exploration or on the post-mortem table. But there can be no question that in a case presenting the usual classical symptoms of acute localised pain and tenderness at the epigastrium—aggravated by food and relieved by vomiting—and hæmatemesis, the treatment in the first place should be on medical lines, and only after this has failed to give relief, or if persistent and severe hæmorrhage or perforation has occurred, should surgical treatment be employed.

Though we may agree on these general propositions, divergent opinions again arise on the best methods to be adopted for the medical and surgical treatment of this condition. The time-honoured medical treatment by peptonised milk, or any other artificially digested food, has been controverted by Dr. A. G. BARRS, of Leeds, in a discussion on the subject at a recent meeting of the Leeds and West Riding Medico-Chirurgical Society. He considered that small meals of

meat and stale bread, if these could be taken without pain, along with water in any reasonable quantity to drink, was preferable to a milk diet; and if there were vomiting then no food should be given, only plain fresh water to drink. We certainly agree with Dr. BARRS that bulk is a most important matter in the feeding of these patients, but surely no one would dream of giving milk in large quantities to a patient with gastric ulcer. With all due deference to Dr. BARRS, we believe that no patient with an open gastric ulcer could take even a small meal of meat and stale bread without some pain after it, and we cannot help thinking that such a meal would be much more likely to irritate an ulcer and precipitate hæmorrhage than a small feed of properly prepared milk. The proof of this is seen in the frequent relapses which ensue on the adoption of a solid diet after a patient has been kept on a restricted milk diet for some time.

The surgical aspect of the treatment of gastric ulcer has been reviewed in a recent paper in the *American Journal of the Medical Sciences* by Dr. JOHN MUSSEY, and he differentiates between simple ulcer and ulcer with complications. As regards the surgical treatment of simple ulcer, the usual operation of gastro-enterostomy, which at times relieves the symptoms temporarily, does not remove the cause of the patient's suffering any more than medical treatment, and statistics from various observers show a mortality of from $11\frac{1}{2}$ to 20 per cent. after surgical treatment. Complications, such as stenosis, adhesions, hour-glass contraction, dilatation, pyloric spasm, occur in some 40 per cent. of all cases of gastric ulcer, usually later in life, and always demand surgical treatment. So, too, does a chronically bleeding ulcer, with grave anæmia, require the intervention of the surgeon, and in these conditions surgical treatment undoubtedly gives infinitely better results than medical. As regards the treat-

ment of the acute complications, in cases of severe hæmorrhage the mortality is higher after surgical intervention than after simple medical treatment; but in cases of perforation immediate operation with excision of the ulcer gives the best results.

In view of these statements we must conclude that the safest course to adopt in simple uncomplicated cases of gastric ulcer is appropriate medical treatment; but when chronic complications of the nature above referred to, or when an acute perforation has occurred, medical treatment is not only a waste of time, but seriously endangers the patient's life and usefulness.

THE MONTH.

Medical Registration in Victoria.

In our last issue we referred to a case which had recently occurred in Melbourne in which the Medical Board of Victoria felt compelled to register a homœopath who had completed not more than two and a half years of medical study and had obtained the degree of M.D. from Boston, U.S.A., and we noted the request made by a deputation representing the profession in Victoria for an amendment of the Medical Act. Last month another deputation, representing the board of management of the Homœopathic Hospital—with which institution the doctor in question is connected—interviewed Sir Alexander Peacock. The homœopathists supplied a series of answers to the statements made by the Melbourne University Council. They urged that the practice in the Boston and New York Universities was analogous to that which obtained in Edinburgh and London, and other parts of Great Britain, where certificates of attendance at Melbourne University lectures were recognised, and the students were allowed to present themselves for examination at the one time in all the subjects they had studied. The point was also taken that this particular student had passed the matriculation examination, though he had not paid the fee and was not registered as a matriculated student. It was further urged upon the Chief Secretary that if there was any anomaly the rectification of it lay with the Melbourne University authorities, by amendment of regulations in

the direction of withdrawing certificates of attendance on lectures unless consummated by the passing of examinations in subjects of such lectures, and not by endeavouring to boycott the Boston and New York Universities. The Homœopathic Hospital could only get its doctors from America, inasmuch as no training in homœopathy was provided by the Melbourne or any British University. The feebleness of this protest is obvious, and the main point is not touched. Is it fair to the general public that a gentleman who has completed less than half the term of study required by the General Medical Council of Great Britain, and who has obtained an American M.D., should be placed on the medical register as a legally qualified medical practitioner, and placed on the same footing as graduates of the Melbourne or British Universities, who are compelled to spend at least six years to obtain an M.D. degree? No degree or qualification from any college or university should be registrable in Australia which can be obtained after a course of study shorter than five years.

A Pure Milk Depot.

As an outcome of the recent discussion at the meeting of the Victorian Branch of the British Medical Association on the milk supply a committee was appointed to formulate a scheme for the establishment of a pure milk dépôt to assist in preventing the propagation of infantile tuberculosis. The principal features of the scheme are to obtain a supply of milk from special dairies, which milk will be inspected by the bacteriological department of the University; the milk to be pasteurised or refrigerated, and distributed in sterilised bottles to the Women's Hospital, the Children's Hospital, crèches, and other approved places under a committee of medical men. A proposal to establish a small dairy farm for educational purposes is under consideration, but nothing definite has been decided. It is proposed to form a Medical Milk Board to control operations, and when this is completed, a public meeting, under the auspices of the Governor and Lady Talbot, will be held in the Town Hall in connection with the movement. The Medical Board will be responsible for the proper inspection of the dairy, and will arrange for bacteriological examinations and chemical analyses, as well as other sanitary precautions towards improving the standard of milk. The profession in Victoria is to be congratulated on

the definite forward step taken to secure a pure milk supply, so that the present high rate of infantile mortality may be soon reduced. We think that the other States might well follow the example set by Victoria in this matter.

A New Consumptive Sanatorium.

A new sanatorium for the treatment of "respectable, moral and cultured persons" who are suffering from preliminary tuberculosis is now being erected in Hazelbrook, on the Blue Mountains, in New South Wales, out of funds provided under the will of the late Mr. R. T. Hall. The trustees have started on the building, and the first wing will absorb £6000. The remaining wing will be built later on, when the trustees will have profited by the experience gained in the erection of the first wing. It is contemplated that at first only about 10 or 12 patients will be admitted. These will be lodged, liberally nourished, and carefully nursed and treated free of charge. The building, which has just been begun, will probably be ready in eight or nine months for the reception of patients. A resident medical officer, matron, and nurses will be appointed. The land on which the building is to be erected has been beautified during the last few years; an orchard has been planted, and pathways and roads have been laid out. The land consists of 164 acres, and a road, about half a mile long, leads up to the knoll on which the sanatorium will stand. This road is planted on either side with an avenue of pinus trees. The water system consists of a dam, from which the water is pumped by an engine into the service reservoir 225 feet above the level of the dam. This service reservoir will contain 30,000 gallons of water, from which the house will be supplied by means of gravitation. The institution will no doubt constitute a valuable addition to the accommodation already provided for the open air treatment of consumption in New South Wales. But we cannot help feeling a regret that the money thus being spent was not contributed to the Queen Victoria Homes for Consumptives fund for the establishment of an additional wing, which might have been called after the donor. Multiplication of charities means extra expense in maintenance and administration, with no corresponding advantages. Moreover, it is unlikely that a resident medical officer will be readily obtained for a small sanatorium accommodating 10 or 12 patients.

However that may be, we can only feel grateful to the generous donor for providing this additional accommodation for the consumptive poor—for we presume it is intended only for those unable to pay for private treatment.

An Inebriates' Home for Queensland.

The necessity for the establishment of a home for inebriates and drug habitues in Brisbane was recently brought before the Brisbane General Hospital Committee by Dr. McLean, the Medical Superintendent. In support of this he referred to the case of a woman who had been admitted to the Brisbane Hospital five times, suffering from alcoholism on each occasion. She drank methylated spirits when unable to procure spirits in the usual way, and also stated that she took various drugs. The woman was brought before the court, when she pleaded she was not a criminal, and that she wished to go to an inebriate home. The police magistrate, however, owing to the lack of such a home, was compelled to send the woman to gaol for three months. This woman, the doctor stated, had some self-respect left, as she was so willing to place herself under restraint, but it was doubtful if three months of gaol life would be of any value, as her drinking habits would not be cured, and she would quickly relapse. There were always a number of cases of chronic alcoholism coming in to the hospital. Some were discharged relieved, and promptly went back to their old habits. They also spent a certain amount of time in gaol. "The time under restraint," said Dr. McLean, "is not long enough to do any permanent good, and I have not yet known of one of these cases to be cured under the present method of gaol and hospital. There is an Inebriate Act, which provides for the detention and treatment of these unfortunates, but as there is no home provided the Act is apparently not in force, and the cases go from bad to worse. The law assumes chronic alcoholism to be a disease, as it provides an Act to treat it as a disease, but practically it brands the unfortunate sufferer as a criminal." The report was forwarded to the Chief Secretary, who has stated now that the Government are fully alive to the necessity for such an institution, and hoped soon to establish one.

Multiple Hospital Appointments.

The question whether a physician or surgeon should hold an appointment in more than

one hospital was the subject of much discussion last year at Bristol, England, and arose over a proposed new regulation which would have prevented the member of the honorary medical staff of the Bristol General Hospital from holding other hospital appointments. As a result of the vigorous action of the staff, the proposed new regulation was abandoned. From a report in the *Melbourne Age* we learn that the same question has cropped up in connection with the Women's Hospital in that city. At the meeting of the committee last month Mr. Pirani moved—"That in the opinion of this committee it is undesirable in the interests of the hospital that any member of the honorary staff should be a member of the honorary staff at any other hospital." He said he had no intention to reflect in any way on any of the honorary staff of the hospital, or to suggest that they were not doing their duty, but as a matter of principle. When he gave notice of the motion he was not aware that any member of the honorary staff held such dual positions, but he had since discovered that two of them did so, though one had more recently resigned, leaving only one thus situated. The one referred to would not be bound to resign if the motion was passed. It would be a question of taste whether he would continue to hold the two positions or not, but he (Mr. Pirani) was of opinion that the hospital was entitled to have the full services of every member of the honorary staff. They might easily conceive a position in which an honorary member of the staff would say, "I can't attend to your business because I have to go somewhere else." The motion was seconded, but the president expressed the opinion that it was not a gracious thing to interfere in the matter. After further discussion the motion was carried, and Mr. Pirani agreed to frame a by-law for adoption at the next annual meeting. We should advise the Women's Hospital Committee not to adopt any such by-law if they wish to retain or secure the services of the best surgeons on their hospital staff.

International Congress on Tuberculosis.

In our previous issue we gave some details concerning the approaching Congress on Tuberculosis. We have now been informed by Dr. Ashburton Thompson that the directors of the Canadian-Australian line have generously consented to make a reduction of 25 per cent. on the fares of members who proceed to Washington by way of Vancouver.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A clinical evening was held on May 15th, 1908, at the Royal Society's Rooms, 5 Elizabeth-street, Sydney; the President, Dr. G. H. Abbott, in the chair. There were about 50 members present.

Dr. T. FIASCHI exhibited the Allatin Nef bed rest for maintaining the Fowler position.

Dr. E. H. BINNEY read notes on "Three Interesting Intestinal Cases":—1. An unusual case of intussusception. 2. Artificial anus—radical cure by resection of bowel, and end to end anastomosis. 3. A case of intussusception of the appendix; resection of bowel with end to end anastomosis (specimen).

Drs. P. Fiaschi and C. MacLaurin discussed the cases, and Dr. Binney replied.

Dr. W. CHISHOLM read notes on a case of "Strangulated Inguinal Hernia" in a child 28 days old—gangrene of bowel—resection—end to end anastomosis six days later—child now well four years afterwards.

Drs. Worrall, Hinder, McKay, R. S. Bowker, MacLaurin and Binney discussed the case, and Dr. Chisholm replied.

Dr. T. FIASCHI read notes on "A Case of Necrosis of Skull" (exhibited), and "A Case of Diffuse Hypertrophy of One Breast" (exhibited.)

Drs. McKay and R. S. Bowker discussed the cases, and Dr. Fiaschi replied.

Dr. R. Worrall read notes on "A Case of Fibro Sarcoma of Ileum by resection of bowel and end to end anastomosis by suture—Recovery."

Drs. P. Fiaschi, R. S. Bowker, Stacy and Sheldon discussed the case, and Dr. Worrall replied.

Dr. HERSCHEL HARRIS read notes on "Plastic Roentgenography."

Dr. Ludowici made some remarks, and Dr. Harris replied.

The usual monthly meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on May 29th. The President, Dr. G. H. Abbott, was in the chair. There were about 50 members present.

The Chairman declared the following members to be duly elected:—Dr. Edwin C. Chisholm, Riverstone; Dr. Charles Weston Maher, St. Vincent's Hospital, Sydney; and the following to be candidates for election:—Dr. Cyril James Weedon, Royal Prince Alfred Hospital; Dr. Kenyon St. Vincent Welch, North Sydney; Dr. Wm. Augustus Kelly, Wingham.

Dr. ISHISTER read a paper on "The Artificial Dilatation of the Cervix in Labour" (Bozzi). (p. 277.)

Dr. WORRELL read a paper on "Difficult Labour." (p. 274.)

Dr. FOURNESS BARRINGTON read a paper on "Ante- and Post-Partum Hemorrhage." (p. 278.)

Dr. ISHISTER, in reply to some remarks, said that the Bozzi was an emergency instrument and would be used where the De Ribes bag could not be introduced. He thought gloves were a drawback in the third stage, if interference was necessary.

Dr. HERSCHEL HARRIS, referring to the skiagraph illustrating Dr. Worrall's case, said that the amniotic fluid was so dense that usually it interfered with the definition of the X-ray photograph.

Dr. H. C. HINDER, referring to hæmorrhage after the delivery of the placenta, said that in a case of his own, occurring some years ago, the pulse of the patient got weaker and weaker, until he placed his fist in the vagina and used bimanual compression, which he kept up for 20 minutes with success.

Dr. CHENHALL endorsed most of the papers, but experience led him to a more hopeful and conservative view regarding placenta prævia than the teaching of authors had previously given. He admitted "pregnancy should be terminated immediately placenta prævia was diagnosed," as an endorsement of opinions of many men of vast experience. He also admitted the risks of delay, but claimed that conditions and circumstances sometimes warranted them. He had seen, in consultation, two cases during the past three years. One was in the seventh and the other in the eighth month of pregnancy. Both women, being strong and healthy, with desire of parentage, expectant treatment was adopted. The conditions of life were, in the highest degree, favourable. The second case was delivered at term, mother and child being alive to-day. No special interest attached to this case. The other was a case of placenta prævia centralis, and the mother had lost her child and almost her own life under similar conditions two years before. Intermittent hæmorrhage occurred up to term, when it became with onset of labour, profuse. With considerable forethought a tight cervical and vaginal tampon had been inserted and a well-appointed operating room prepared. Upon his arrival patient was placed upon the table and the external genitals scrupulously cleansed. Light anaesthesia was induced. Profuse hæmorrhage followed removal of tampon, but this was partially controlled by the "gloved" hand quickly inserted. The cervix being amply dilated, the vertex and bulging membranes were felt against the placenta. Plunging his hand through the placenta he ruptured the membranes, and rapidly, by Braxton Hicks' manœuvre, brought down a foot and compressed the fetal buttock against the placenta, thus controlling the bleeding. He then quickly completed delivery and separated the bleeding placenta, after which he tightly packed the uterine cavity with a long roll of sterile gauze, compressed the uterus and administered ergot. Rapid and complete recovery followed. Whilst he admitted that mortality was great, he believed that the individuality of each case should be considered. Mortality depended more upon the condition of the patient and the method of delivery than upon the abnormal site of the placenta. Circumstances and conditions of life must in each case determine procedure. At any rate, two mothers and infants are some warrant for conservative procedure, and where conditions and circumstances, as in these cases, are sufficiently favourable, he would be much more inclined than formerly to "watch and wait."

Dr. JOHN MORTON spoke of a method of decapitation which he had found useful, namely, in the absence of a hook, the passing of a piece of cord round the neck. The tissues in this way cut like cheese. He considered the De Ribes' bag the best method of dilating the cervix in placenta prævia, and the accoucheur should never be without it. Rubber goods were susceptible to the light and should be kept in the dark. Rubber gloves, in his opinion, should always be used, and there could be no excuse for their non-use.

Dr. CRAGO had used the Bozzi dilator with success in several cases. There was a difficulty in some cases in getting the flange beyond the internal os. He thought all nurses should be taught the bimanual method of compression for hæmorrhage as part of their training.

Dr. STEWART MCKAY ridiculed the use of a binder. The first thing a medical man should teach a midwife should be that a binder must never be put on for the first 24 hours.

Dr. WORRALL stated that it was not the amount of hæmorrhage that should be taken into account so much as its effect on the patient. He considered Bozzi was a most useful instrument in eclampsia, but it would not always be successful. It was also useful in the premature rupture of the membranes with great delay. In plugging the patient should be on her back, as there was less danger of an aspiration. In concealed hæmorrhage, if the patient be in a hospital, he would prefer a Cæsarean section. He spoke favourably of compression of the inferior vena cava, two inches above the umbilicus, as a preliminary treatment in post-partum hæmorrhage, as this was considered to be a regurgitant venous flow through the valveless uterine veins.

Dr. GEO. ARMSTRONG criticised Dr. Worrall's case. He thought more determined attempts should have been made to decapitate, and even failing that, he would have preferred Cæsarean section.

Dr. BARRINGTON thought there was much careful forethought in Dr. Isbister's paper. In those cases in which it was necessary to use mechanical dilatation to hasten delivery there were two factors to be considered: the state of the patient and the condition of the cervix. The cervix either would dilate or it would not dilate. When the cervix was dilatable, and therefore stretched without tearing, dilatation might be hastened by Bozzi's instrument, using, as had been pointed out, care, time and patience. But when the cervix was rigid, not taken up and the patient not in labour, its use was highly dangerous. It was more surgical to make a clean cut in, than tear in the attempt to dilate, such a cervix. Obstetric hysterectomy would be of service in a few such cases when really urgent. As regards Dr. Worrall's case, he felt that the best procedure had been carried out, for it was inferred on good grounds that the uterus was infected. He could speak from experience of a case of Cæsarean section of his own, some years back, in which it became evident that the uterus was infected before operation, though after a stormy and long convalescence the patient finally recovered. He would not accept such a risk again, but remove the infected organ *in toto*. He entirely disagreed with the advice to "watch and wait" in cases of placenta prævia. Such a policy might be followed in the rich if they were prepared to keep a medical man in the house. In general practice, he thought it advisable to ensure a definite diagnosis by digital examination of the cervix, if necessary, by dilatation under an anæsthetic, in all cases of marked ante-partum hæmorrhage. It was too dangerous to temporise in placenta prævia, and such a course must, sooner or later, spell disaster. He had found de Ribes' bags would keep well after sterilisation in a linen bag in a tightly closed tin case, and be always ready for use. He preferred this means of dilatation to any other when the bag could be introduced and there was no great urgency, as it imitated most closely the physiological method. He could not agree with the abandonment of the binder. If applied when the uterus was well contracted it was a great safeguard to maintain that contraction, and if, after undue hæmorrhage, pads were placed on the abdominal wall above the fundus, he had never seen, after being well contracted and completely emptied, the uterus fill up with clots, when a tightly fixed bandage had been applied. He thought a patient was far safer at all times with a tight binder. The application of direct pressure to the bleeding uterus seemed more in accord with general surgical principles, and therefore more likely to be

effectual than attempting to compress the main artery going to the veins leaving that organ.

Council Meeting.

The Council met at the Association Rooms on Tuesday, 12th May, 1908. Present: Drs. Abbott, Crago, Rennie, Clarence Read, Jenkins, Worrall.

The minutes of the previous meeting were read and confirmed.

Apologies from Drs. Hinder, Palmer, MacCormick, for non-attendance.

Hon. Treasurer's Statement.—General account, credit, £789 15s 10d : *Gazette* account, credit, £495 19s 3d.

Report of Hon. Secretary relating to a conference with the Loyal St. John's Lodge and the South Sydney Medical Society relating to lodge practices.—Report received.

Letter from Dr. Booth, of Broken Hill, asking for information with reference to the Australian Medical Association.—Letter received.

Letter from Dr. Cribb, of Millthorpe, Hon. Secretary of Western Medical Association, asking for a member of the Council to attend the annual meeting.—Dr. Hinder visited Dubbo on behalf of the Council.

Letter from Assistant Secretary, B.M.A., re advertisement "Refraction taught."—Received.

Letter from a member with reference to a touting circular.—Resolved that the publication of such a circular is considered to be unprofessional.

Letter from Dr. Savage, Hon. Secretary, Eastern Suburbs Medical Association, relating to the Model Lodge Agreement coming into force as soon as possible. Resolved that the matter be postponed.

Letter from Dr. Thorp, of Perth, W.A., asking that the local press be watched for certain advertisements. Request to be acceded to.

Letter from the Hon. Secretary, University Medical Union, asking for a lecture to be given to the fifth year students, on British Medical Association matters. Resolved that the President be requested to give the lecture.

Letter from the General Secretary, B.M.A., relating to the representatives of Branch.—Received.

Letter from Dr. Purdy, of Wellington, N.Z., asking for particulars relating to ambulance work. Particulars to be supplied if obtainable, also to state that the Government requiring the certificates, they should be paid for.

Letter from Dr. J. A. Dick with reference to the supply of pure milk. Deferred.

Dr. Clarence Read (on behalf of Dr. Hinder) moved—"That no member of the N.S.W. Branch of the B.M.A. shall apply for appointment as medical officer to any hospital or any lodge unless applications for such positions are formally invited from the hospital or lodge." Carried.

Resolved—That the resolution be printed on the circular convening the next meeting.

Dr. Clarence Read gave notice to move—"That Council meetings be held twice a month."

Queensland.

A MEETING of the Queensland Branch was held on Friday, June 5th, 1908, at the Technical College, Brisbane; Dr. B. L. Gibson (president) in the chair, and an attendance of 14 members.

The PRESIDENT exhibited an eyeball excised for early sarcoma.

Dr. SALTER remarked upon the early spread of such tumours, even when the appearance of it in the eyeball itself suggested that the growth was in a very early stage.

Dr. HARDIE proposed, and Dr. BROCKWAY seconded, and it was resolved that a deputation consisting of the President, Secretary, and the mover, wait upon the Commissioner of Police with reference to the traffic regulations as they concern medical practitioners.

Dr. ROBERTSON called the attention of members to the existence of a sanatorium for consumptives and other cases at Stanthorpe, which was under the direction of Dr. Helen Shaw, a member of the Branch, and spoke in high terms of praise of Stanthorpe as a health resort.

Dr. BROCKWAY stated that he had seen the sanatorium, which was built on modern lines; he referred also to the tent camp, in which a number of ladies were living at Stanthorpe for purposes of health.

Dr. SALTER read a paper upon the "Treatment of Tetanus."

Dr. TURNER expressed himself as very much interested in tetanus, and said that though the disease was more common in Queensland than in colder climates, it appeared to him remarkable that it did not occur more often, and said that though the treatment of tetanus by antitoxin had not yet been attended with marked success, its value as a prophylactic was beyond question. The disease was very variable in degree; some cases recovered without specific treatment, others being rapidly fatal in spite of all efforts. With reference to prognosis, those cases promised a more favourable result in which incubation was long and in which the progress of symptoms was slow. He related his experience of very severe cases in which death occurred in 24 hours after symptoms developed, in spite of very vigorous treatment by antitoxin. His treatment of cases in which there was a foul wound would be to clean out thoroughly, to scrape it out under an anæsthetic, and swab freely with pure carbolic acid; if the wound were in the finger or toe, he would amputate. In experiments upon guinea-pigs, it was found that for several hours after inoculation with toxin no effect was manifested; during that time the toxins were forming compounds with protoplasm of the nerve cells, the extent of which was in proportion to the amount of toxin injected. He would administer serum freely as soon as possible after the symptoms had shown themselves, and would administer chloral in order to induce sleep, which conserved strength, and so gave better opportunity for the antitoxin. He related one case of tetanus neonatorum which had recovered.

Dr. MCLEAN had seen seven cases of tetanus in two and a half years; five had died and two had recovered, all of them having been treated with antitoxic serum. He narrated one case in which the symptoms had developed 14 days after injury, and which had died 48 hours later. In another case, which was a very serious one, 1 oz. of 1 in 20 carbolic acid had been injected accidentally into the abdominal wall, and after that 1 dr. of 1 in 40 carbolic acid was injected into the abdominal wall, and after that 1 dr. of 1 in 40 of carbolic acid was injected into buttock every four hours. This case had recovered, and previous to the accidental administration of carbolic acid the patient appeared to be rapidly worse, in spite of very vigorous treatment by serum. Another case similar to that one had been treated in the same way and recovered. Other cases treated with carbolic acid had died within 24 and 36 hours after starting the treatment, serum being given also to them. He corroborated from various authorities the great prophylactic value of serum. In a series of cases there had been no single one of tetanus; immunizing doses of serum had been administered at the time of accident. The statistics of carbolic acid treatment had not shown that it was much, if of any value. His

practice was to administer an anæsthetic, clean out thoroughly, and even dissect out the wound, swab out with pure carbolic acid and inject the surrounding neighbourhood; he would use serum in full doses in conjunction with carbolic acid, and administer chloral for spasms.

Dr. HARDIE related a case of a young man who had had tetanus for six or eight weeks before being seen by him, and the administration of antitoxin appeared to be without effect. His treatment had been to keep the patient absolutely quiet and to administer aspirin. The man recovered in three months.

Dr. J. CAMERON said that so long as the patient could swallow there was a chance of recovery. Absolute quiet was essential, and he thought that perhaps the excitement induced by the administration of antitoxin did more harm than the antitoxin did good. Age was an important feature in prognosis, tetanus being nearly always fatal in children. He felt that if more were known certainly concerning the habitat of bacillus there would be more chance of establishing satisfactory treatment for the disease.

Dr. TURNER remarked that his experience in children had been more favourable than that related by Dr. Cameron.

The PRESIDENT then discussed the paper, and Dr. ELEANOR BOURNE stated that she had seen six cases, two of which had recovered. In one of the recoveries symptoms had appeared within 10 days, and the patient not being able to swallow had been fed by nasal tube, and full doses of antitoxin had been administered.

Dr. SALTER replied, and said that it was known that the tetanus bacillus was found in the intestinal canal of the horse and cow, and it was in this way that the bacillus was introduced, as manure to garden soil. He explained also that the frequency with which tetanus followed injuries in the road was that the portion of the body injured had dust ground into its tissues.

Victoria.

THE usual monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, June 3rd, at 8 p.m. The President, Mr. G. A. Syme, occupied the chair, and there were 38 members present.

Dr. T. G. BECKETT showed two cases of hypertrichosis, with photographs; also photographs of a case of extensive port wine marks involving both sides of the face. These three cases had all been successfully treated by X-rays.

Dr. HERMAN LAWRENCE showed the following cases: 1. A case of *navus flammens*, treated successfully by radium. 2. A case of rodent ulcer, treated by radium. 3. A case of *granuloma fungoides* controlled by X-rays.

Dr. W. KENT HUGHES showed a case of congenital talipes equino-varus illustrating its mechanical causation.

The report of the sub-committee appointed at the special meeting on May 2nd to consider the question of a pure milk supply for infants was read by Dr. W. A. Wood.

Its adoption was proposed by the President and seconded by Dr. G. CUSCADEN.

Dr. SPRINGTHORPE said that the sub-committee deserved the best thanks of the Association. He considered, however, that instruction was the main object, and that this might have been given more prominence in the report. Especially he referred to the education of the people—the consumers. It was not sufficient to ensure the milk being delivered pure if it were to be kept in dirty vessels needlessly exposed to contamination. Supervision was essential, and to be practical

it must extend even into the homes of the consumers. Another necessity would be the co-operation of the dairymen, and he regretted that they were already adversely criticising the movement. Another body whose co-operation would be valuable was the Australian Health Society.

Dr. W. K. HUGHES objected to the proposed title as being too cumbersome.

Dr. S. S. ARGYLE said that his criticisms were still very much those which he had uttered at the special meeting in discussing the proposals then suggested. He considered that the trade would be amused rather than educated by a farm such as that proposed to be established at Burnley. If a gilt-edge farm were run with public money on such lines that if the milk were sold commercially it would cost 100 per cent. more than current rates, how could the dairymen be expected to follow suit? He considered that the educational value of such a farm would be nil, and the £3000 wasted. To educate the people when they got the milk was much more important. Dr. Argyle then discussed the various functions of the proposed institution as set out in the report *seriatim*. He approved of No. 1, provided that the conditions were not made impossibly stringent; otherwise even the more intelligent and enterprising dairymen must be alienated. He considered one of the main functions should be the establishment of depôts in the middle of the people, with ice-chests and chambers available to the people at all times. He was a little doubtful about the "hall-marking" of the milk, but he considered that in helping the authorities to prevent adulterated milk being sold would do immeasurably more than any production at a toy dairy farm such as that proposed to be conducted at Burnley.

Dr. CHERRY said that the first difficulty which faced the committee was that of finding a farm with proper appliances and with milk produced under proper conditions. What was required was a farm open to inspection by all dairymen. If an existing dairy were chosen, to be subsidised and supervised, he feared that dairymen would go to criticise, not to learn; hence the Burnley scheme. Thirty or forty acres were available at Burnley, and only £500 or £600 further were required for buildings to make it an ideal farm for educational purposes.

After further discussion, the report was adopted, with the addition of the words "or subsidisation" after the word "establishment" in No. 2 of the primary functions.

Dr. J. W. SPRINGTHORPE moved—"That reforms are urgently needed in dealing with cases of early mental disease, and that a sub-committee be appointed to investigate and report what course of action the Branch should take in connection therewith."

The motion was seconded by Dr. T. G. BECKETT, supported by Dr. J. Y. FISHBOURNE, and carried.

The following were elected members of the sub-committee:—Drs. Beattie Smith, Fishbourne, McCreery, Henry Laurie (convener), R. R. Stawell, the medical officers to the private licensed establishments, and the official visitors to the asylums (Drs. J. Jamieson, A. S. Joske and J. W. Springthorpe).

The meeting then terminated.

South Australia.

THE ordinary monthly meeting was held at the University on Thursday evening, May 28th, at 8 o'clock; the President, Dr. Evans, in the chair, and 26 members present.

Living exhibits:

Dr. REISSMANN showed three patients who exhibited the ophthalmo-tubercular reaction.

Dr. H. S. NEWLAND showed an infant, aged 5 months, suffering from chronic hydrocephalus. He had tied both common carotid arteries, so far without benefit.

Dr. J. C. VERCO showed a specimen of a cyst of the cerebellum.

The minutes of the previous meeting were read and confirmed.

Dr. REISSMANN then read his paper on "Present Day Views on the Nature of Tuberculosis and its Treatment by Medical Means." (See p. 269.)

The PRESIDENT thanked Dr. Reissmann for his paper, and said that with regard to the statement of Dr. Reissmann that up to the present time no one had succeeded in converting the human bacillus into the avian bacillus, that some years ago a fatal epidemic broke out amongst the secretary's turkeys at the Adelaide Hospital. A post-mortem examination showed that they all died from tuberculosis, having presumably been infected through feeding on the expectoration of phthisical patients who congregated in the neighbourhood. He thought that the difference in temperature in the different species might account for the different forms of tubercle bacilli. It was well known that the same plant might vary in appearance in different climates.

Dr. W. G. HAYWARD said that members were indebted to Dr. Reissmann not only for his valuable paper but for the trouble and expense he had gone to in sending them advance copies of it. The last time the subject under discussion was before them was about two years ago, and the interval gave them an opportunity of having a "stock-taking" enabling them to make a comparison of the opinions held then and now. In 1906 probably it was generally agreed that the mode of entry of the bacillus into the system was by the respiratory tract, but there could be no doubt that since then many pathologists had come to the opinion that this tract was quite subsidiary to that of the alimentary. Personally, though willing to admit that the alimentary tract was responsible in a certain number of cases, he would not give up his convictions on the subject until the evidence was much stronger than it was at present. When one's ideas had been knocked on the head by an eminent German pathologist with an unpronounceable name, one could take heart in the comfortable knowledge that before very long an equally eminent German pathologist with an equally unpronounceable name would arise and confound pathologist No. 1. Dr. Reissmann had not alluded to the "droplets" described by Mr. Greig Smith and others, which seemed a reasonable theory as to one method in which the infection could be promulgated. As regards means for diagnosis, he thought that of Calmette's reaction was a distinct and promising advance. On the other hand, the hopes that the X-rays would prove of benefit had not been realised. As to the important subject of treatment, the paper they had heard left a distinctly depressing feeling. He quoted paragraphs in Dr. Reissmann's paper in 1906 in which most optimistic anticipations were indulged in with regard to the "tuberculin" and "opsonin" treatment, and compared them with the pessimistic opinions that had just been expressed by the same authority. As far as treatment was concerned, they were thrown back on the value of fresh air and sanatorium treatment, and that of "prevention." Direct measures seemed to avail little. He was sorry to note the remarks *re* the "compulsory notification" of the disease, for he firmly

believed that this was absolutely necessary. Though there was reason to regret such small progress had been made in the direct treatment of pulmonary tuberculosis, there was every reason to rejoice over the success of the preventive treatment, and he ventured to say that this success was due in a great measure to the institution of the consumptive wing of the Adelaide Hospital, which was really a hospital for the dying. The segregation of these unfortunates must lead to the reduction of cases of infection. The success was shown by the gradual decrease of the applications for admission, but was better shown by the statistics of the medical officer of health for Adelaide, Dr. Borthwick. Whereas the death-rate from pulmonary tuberculosis during the period 1895-99 was 74, last year it was only 56, and this reduction had been gradual. The cases reported during the last three years had been respectively 89, 75, 57. In the light of these figures there could be little doubt that progress was being made.

Dr. J. C. VERCO was not aware of any facts showing that virulence varied with the length of the tubercle bacillus. He did not think that pulmonary and glandular tuberculosis were different. It was common to find one supervening on the other. He thought the theory of infection through the pleura from the lymphatic bronchial glands was absurd. There was not a greater satire on medicine than the history of the treatment of consumption. We had had in succession Koch's tuberculin, cacodylate of sodium, guaiacol, new tuberculin and the X-rays, and after all we had come back to the days of Hippocrates, when the sick went to the temples to bask in the sunlight and fresh air. He did not think the X-rays were of any use in diagnosing the presence of tubercle in the lungs, but were useful in proving the presence of other diseases, such as hydatid, which might simulate tubercle. He believed in compulsory notification and in treating rich and poor alike. Prevention was better than cure, and he thought that infection from individual to individual was the chief factor in the spread of tuberculosis, rather than infection from the cow's flesh or milk. He had been collecting statistics for some years of cases of infection from husband to wife and *vice versa*. The former happened much more often, and the reasons for it were obvious.

Dr. A. G. HAMILTON still had some faith in the virtues of creosote and guaiacol, and was glad that the estimation of the opsonic index was not necessary to treat tuberculosis successfully. He approached cases with more hope than he did 15 years ago.

Dr. MORRIS thought less cases went to the sanatoriums than did so a few years ago, as patients realised that cure was not very reliable at a sanatorium. He believed in compulsory notification, but thought that when a man was branded as having the disease that the Government should make some provision for him and for his family, as it was often impossible for him to obtain work.

Dr. F. MAGAREY thought it ridiculous that the prevention of tuberculosis should be left in the hands of the municipalities rather than the State. Many of the municipal sanitary inspectors were quite incompetent. The State should recognise its responsibilities and support those dependent on sufferers from tuberculosis. The administration of the Health Act was often a farce.

Dr. HORNE agreed with Dr. Hayward that the treatment of pulmonary tuberculosis had passed into the hands of specialists, but the general practitioner could do a great deal in the way of preventive treatment. He strongly believed in infection from individual to individual, and when he was practising in the country

he was able to trace the infection in almost every case. It was not so easy to prove it in towns, but he thought it was invariable. The abolition of compulsory notification would be a retrograde step.

Dr. P. BOLLER thought that rooms which had been occupied by consumptives were often insufficiently disinfected. Every cesspit at the house of a consumptive should be frequently emptied and disinfected. He believed in the compulsory cremation of all those who died from tuberculosis or any other infectious disease.

Dr. REISSMANN in replying said he did not think that Dr. Evans' instance of infection from man to bird was reliable. Birds in captivity frequently died from tuberculosis. He did not think that avian tubercle was transferable to man or *vice versa*. The monkey was susceptible to human but not to avian tubercle. He thought that five years hence all would believe that infection took place via the alimentary canal. He still believed in voluntary notification. His belief was that infection occurred from man to man, but he evidently had not made it clear. He thought careless patients should be isolated compulsorily. He thought the potassium permanganate and formalin method the best way to disinfect a room.

The meeting then closed.

West Australia

THE ordinary monthly meeting was held at the Perth Public Hospital on May 20th, 1908. Present: Dr. Seed (president) in the chair, and 22 others.

The minutes of previous meeting were read and confirmed.

The following gentlemen were unanimously elected members of the Branch:—Dr. H. O. Irwin, M.B., B.Ch. (Adelaide), Boulder; Dr. F. L. P. Sawell, M.R.C.S., L.S.A., Boulder; Dr. M. O'Brien, L.R.C.P. & S. (Edin.), Fremantle.

Correspondence.—A letter was read from Mr. Wm. Sheen, of Cardiff, appealing on behalf of the Lynn Thomas and Skyrme fund. After discussion it was decided to support this fund by subscription among members, and a subscription list was opened in the room, and the hon. sec. was empowered to receive further subscriptions on behalf of the fund.

Dr. COUCH then read a paper entitled "Axis Traction Forceps v. Telephone and Motor Car."

Drs. Officer, Hodge and Cleland took part in the discussion on the paper, and Dr. Couch replied.

Dr. THORP made a further report on the Goldfields' hospitals committee's work, and the matter was left in the hands of the committee.

Pathological Specimens.—Dr. BLACKALL showed microscopical slides as follow:—1. From a case of ruptured heart in a man of 65 years. The tear was in the left ventricle and was about two inches in length. There was no fatty degeneration, but one of the branches of the anterior coronary artery had become aneurismal. Section shown through the tear. 2. Multiple abscesses in the heart. The case had started with apparently enteric, but no definite diagnosis had been made before death. Post mortem the heart was found to be studded throughout with minute abscesses. In the liver there was one large abscess near the centre, and in the colon were a few dysenteric ulcers. There was a history of dysentery seven years before. There were no other lesions present.

Dr. BLACKALL also showed pulse tracings from a case of spasmodic tachycardia.

Dr. COUCH showed—1. Cancer of stomach from a case of gastrectomy. 2. A decidual cast from a case of ectopic pregnancy.

REPORTS OF OTHER SOCIETIES.

The South Sydney Medical Association.

THE South Sydney Medical Association, constituted this year, has held Council and general meetings for settlement of questions with friendly societies in Newtown and adjacent districts, whereby the long-standing difficulties with St. John's Lodge, M.U.L.O.O.F., have been finally adjusted on the terms of model agreement drawn up by the Council of the British Medical Association (including the £200 per annum limitation clause); and the former medical officers, who resigned, have been reinstated.

On March 20th a clinical evening was spent at the house of Dr. Sandes, hon. secretary, when Dr. Walter Spencer exhibited a patient suffering from primary gout or arthritism, bearing remarkable resemblance to one presented before the clinical section of the Royal Society of Medicine in December last, which was discussed with interest by Dr. Osler and others. The patient, 28 years old, had been over-addicted to beer, and had a brother and two sisters also victims of gout. He came to Dr. Spencer on December 29th last showing a tumour, size of an eggcup, over the right olecranon, with numerous others of smaller size over tendons and joints of fingers, forearms, and near one knee-joint. There was no evidence of articular erosion nor of marginal outgrowth. The olecranon tumour had taken four years to develop. During the past eight days inflammatory softening and much pain had supervened. He passed urine averaging 100 oz. per diem, 3 per cent. albumen. Blood pressure 160 m.m.

Dr. Spencer had removed it and evacuated 3·5 c.c. of mortar-like deposit, together with pus and slough. It did not reach the bone, but invaded the bursal capsular tissue and infiltrated the skin. A normal joint with non-adherent cicatrix remains. On February 17th Dr. Spencer removed a smaller tophus over the metacarpo-phalangeal joint of the right forefinger, which yielded 0·55 of the mortar-like deposit without suppuration. Within seven days the nearest tumour on the next finger diminished and disappeared.

Strict but varied dietary, excluding NaCl, hydrotherapy, medication, massage and exercise have been prescribed. The patient's condition is improved: urine normal, blood pressure 130 m.m.; weight gained 5 lb.

The case was discussed by Drs. Craig, Davies and Bruce. Dr. Jones recalled a case he had seen under Dr. Mitchell Bruce at Charing Cross Hospital, which had been treated with excellent result by thiation.

Western Medical Association.

THE annual general meeting of the Western Medical Association was held at Dubbo on May 13th last. Present: Drs. Howse (vice-president, in the chair), Daish, Burkitt, Busby, Buchanan, Adams, Chauncey, and Cribb. Dr. Hinder, from Sydney, represented the Council of the British Medical Association. Apologies for non-attendance were received from Drs. Machattie, Brooke-Moore, Wilson, Frere, Giommi, Corfe, and Belli. The resignations, through leaving the district, were received from Drs. Watson, Hurst, and Sturges.

The Chairman, in opening the meeting, thanked Dr. Hinder for coming so far to address members on the affiliation resolutions, and regretted that more members were not present. He commented on the apathy

shown by a large number of members living within a short distance, who failed to attend, and predicted that the meetings would cease altogether if the members would not make more effort to attend them.

The minutes of the previous meeting were read and passed, and the balance sheet for the year presented.

The following officers were elected for the ensuing year:—President, Dr. Wilson, Orange; vice-president, Dr. Busby, Bathurst; hon. secretary and treasurer, Dr. Cribb, Millthorpe. Council: Dr. Daish, Dubbo; Dr. Howse, Orange; Dr. Machattie, Bathurst; and Dr. A. Rygate, Wellington.

The affiliation resolutions passed at the annual meeting of the British Medical Association in March were then introduced by Dr. Hinder. After discussion they were unanimously adopted.

Dr. Burkitt moved, and Dr. Daish seconded—"That it is desirable that the Western Medical Association affiliates with the New South Wales Branch of the British Medical Association, in terms of the resolutions passed by that body in March, 1908. Carried unanimously.

The rules and by-laws of the Western Medical Association were then altered to meet the change.

Dr. BURKITT then read a paper on "Surgical Cases," which was discussed by Drs. Hinder, Howse, and Busby.

Dr. CHAUNCEY read a paper on "The Pathology and Treatment of Varicocele," which was discussed by all present.

A paper on "Some Methods used for the Diagnosis of Diseases of the Urinary Tract" was sent by Dr. Forster, of Newtown, and communicated by Dr. Daish.

The Chairman moved a vote of condolence to the widow of the late Dr. Harrie Cox, a member of the Association.

Before the proceedings terminated, the Hon. Secretary brought the matter of the Lodge Practitioners' Defence Fund before the meeting, and secured fifteen guineas, including a donation of five guineas from the Chairman. He suggested that a "guarantee" list for drawing on in emergencies should be opened for practitioners to sign for any sums they would guarantee, also that practitioners should be assisted when required from the fund in proportion to the amount they had contributed to it previously.

The Chairman closed the meeting by moving a vote of thanks to Dr. Hinder, which was carried by acclamation.

Luncheon was served to members and visitors at the Royal Hotel, and in the evening Dr. Daish entertained members and visitors who could stay at his residence.

BALANCE SHEET FOR YEAR ENDING MAY 13TH, 1908.**RECEIPTS.**

Balance, May 31st, 1907	£2 15 0
Subscriptions, 1907-1908	21 7 0
	£24 2 0

PAYMENTS.

Printing transactions of meeting, Wellington, May, 1907	£12 1 0
Postage, wires, etc., 1907-1908	2 10 2
Stationery, etc.	0 13 3
Sundries	0 2 0
Balance in hand	8 16 6
	£24 2 0

Audited and found correct.

WILLIAM DAISH, M.D.

NEVILLE R. HOWSE, Acting President.

A. G. CRIBB, Hon. Sec. and Treas.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Sudden Death in Pleurisy with Effusion due to Change of Position.

Calvert (*Johns Hopkins Hospital Bulletin*, February, 1908), after referring to the papers of Weill and Leichtenstern on this subject, remarks that the possibility of preventing sudden death in pleurisy warrant renewed investigation until the subject is explained in all its details; and after discussing some of the mechanical factors involved, comes to the following conclusions:—

1. *Pathological*.—Sudden death in some cases of pleurisy with effusion, or changing position, is preceded by dyspnoea, irregular pulse and general anæmia caused by collapse of the venæ cavæ and heart, and is due to failure of the venous congestion to compensate the constant variable hydrostatic pressure.
2. *Clinical*.—
 - (1) Dependent as it is on one physical factor (pleural pressure), the venous pressure affords a reliable sign of the intrapleural pressure. Changes in the degree of venous pressure show the activity of the lesion producing the effusion, either increasing or decreasing, especially after the walls of the cavity are stretched. Maximum venous pressure heralds the approach of a period of unstable venous compensation, as the beginning of the failure of the veins to compensate. During this period the patient is exposed to attacks of syncope, sudden death on changing position, or to sudden death from a rapid rise of the pressure with which the fluid is forced into the pleural cavity.
 - (2) During this period the necessary precautions should be taken to prevent unnecessary change in the position of the patient, a horizontal position should be maintained.
 - (3) Maximum venous pressure is a signal for immediate interference, tapping.
 - (4) The importance of the venous pressure suggests a general application by clinicians, of the present methods for measuring venous pressure, to all cases in which venous congestion is present, for the purpose of determining the range of pressure in each pathological condition.
 - (5) In cases of sudden death the clinician should remember the success following continued stimulation of the heart in experiments in physiological laboratories, when the heart has failed; and should apply, over a number of hours, and so far as possible, the same measures to the human heart. By so doing a portion, at least, of these cases might be saved. The first step is to reduce the pleural pressure and increase the venous. Turning the patient on the affected side, and nearly in a perpendicular position, would seem to transfer the variable from the cavity to the outside wall of the pleural cavity, and to add to the venous pressure the column of blood in the large veins. This change in pressure would add much to the effective force of the venous pressure, and might with the aid of the stronger heart stimulants revive the heart. Artificial respiration would, at least, slightly change the small amount of blood which might be forced through the lungs to the left heart. At this stage arterial blood would materially aid in further reviving the heart. If by these means the heart begins to act feebly, the next step is to remove a few c.c. of fluid from the pleural cavity. If too much fluid is removed, the heart will not be able to do the increased work. As the heart is better supplied with blood and increases in strength, more fluid can be withdrawn. Repeated withdrawals of small amounts of fluid until the venous pressure falls below the maximum pressure is indicated. After this the heart is better supplied with blood and

more capable of performing its increased work. Later the fluid may be withdrawn in larger amounts.

The Clinical Importance of the Distribution of Hydrochloric Acid in the Gastric Contents.

Taussig and Rush (*Boston Medical and Surgical Journal*, January 16th, 1908) remark that until recently one assumption has underlain all the quantitative work done on the gastric contents. A test meal of one sort or another was given, and after a definite interval of time had elapsed a sufficient quantity was withdrawn, and, among other things, the total acidity and the free hydrochloric acid determined. The assumption that underlies all these methods is that the chyme so obtained offers in every respect a fair sample of the total stomach contents. Various observations since have shown that the different portions of the gastric contents taken from different regions of the stomach not only do not represent a homogeneous mixture of the food taken, but that they contain various amounts of hydrochloric acid secreted by the mucosa. They have performed a number of investigations on the stomach contents in various diseases (non-malignant) of the stomach, and have come to the following conclusions:—(1) When the stomach contents are expressed and aspirated in the usual manner as completely as possible, the patient sitting erect, only a comparatively small portion of the gastric contents can be obtained. (2) After any of the usual test-meals the acidity of the portion so obtained cannot be assumed to represent the acidity of the stomach contents as a whole. (3) If after this portion of the stomach contents has been removed, the patient is made to lie down, it is usually possible, by means of aspiration, inflation and the like, to obtain a further considerable quantity of stomach contents. This second portion often differs considerably in its acidity from the first portion. (4) Even after this second portion has been removed, the stomach still contains considerable unobtainable residue. The amount of this is apparently independent of the total quantity of gastric contents, and probably varies from 1 to 3 oz. Of its degree of acidity we can know nothing; certainly we have no ground for the assumption that it is identical with the acidity of the contents obtained from examination. (5) The quantitative determination of the acidity of the gastric contents is thus seen to be subject to a grave source of error. This will be diminished if the contents obtainable in the prone position are also examined. It will be further lessened if the acidity of the two portions does not differ very widely, since then we may assume that the acidity of the unobtainable residue will itself not be very different. (6) It follows that in practice trustworthy results can be obtained only if the following precautions are observed:—The stomach contents must be obtained separately in the erect and prone positions; the acidity of each portion must be determined, and diagnostic conclusions based upon the degree of acidity can be drawn only if the two acidities correspond fairly well, or if the total quantity of gastric contents obtained is so great that the unknown acidity of the unobtainable residue may be neglected. (7) Indeed, the entire conception of degree of acidity of the stomach contents seems not to correspond to anything real. Different portions of the stomach contents have different degrees of acidity. We may speak of the acidity of the contents at the fundus or near the pylorus, or, at most, of the average acidity of the total contents. It is this last that clinicians have attempted to determine, but with general scant success.

Heart Block.

Beeson (*Journal of the Amer. Med. Assoc.*, January 18th, 1908) records the following case:—A man, aged 91, complained of shortness of heart and vertigo. Examination of the heart revealed the systolic contraction to be irregular; a pause amounting to the length of three or four contractions would occur following about six normal contractions. During this pause faint contraction could be heard, but the pulsations did not reach the wrist. No murmurs were heard, but the heart sounds were not pure; they were what would lead one to suspect fatty degeneration of that organ. Pulse 40, irregular, indicating the pause very plainly. Audible impulses at the heart area numbered 66; visible pulsations in the neck, 90; blood pressure, estimated by the Riva Rocci sphygmomanometer was 129 m.m., and was peculiar in that some of the pulse beats ceased long before others, the last to stop occurring about every ten seconds before it was finally cut off. The patient's condition continued more or less constant, at times showing improvement. He gradually became weaker, and finally took to bed. The attacks of syncope became worse. In these the patient would become delirious, pulseless, and soon unconscious, this lasting several minutes. He died in one of these attacks. Examination of heart post-mortem showed extreme fatty degeneration with numerous chalky deposits in both heart and vessels. A large deposit producing a tumour $1\frac{1}{2}$ inches long by $\frac{1}{2}$ inch in diameter, and of stony hardness, was found situated in the substance of the auriculo-ventricular septum in a position anatomically that would lead one to suspect that it interfered with the functions of the bundle of His.

Microbic Cyanosis.

G. A. Gibson (*Quarterly Journal of Medicine*, October, 1907) records the following case:—The patient, a married woman, 36 years of age, had suffered for some years from weakness and headaches, often associated with giddiness and faintness. The most obvious symptom was a profound change in the complexion. The patient had blue eyes and golden hair, formerly associated with a ruddy complexion, but during the last two or three years the tint of the skin had become distinctly cyanotic. The face and hands were of a lavender hue, while the lips, ears and nails were nearly as dark as bilberries. Examination of the blood showed hæmoglobin 48 per cent., red cells 3,200,000, the color index therefore being .75; the leucocyte count was 7400. Stained films showed considerable poikilocytosis, but no polychromatophilia, and no nucleated red cells were to be seen. A differential count showed a percentage of 65 polymuclear, 28 small lymphocytes, 5 large lymphocytes, and 2 eosinophiles. There was great intestinal irritation, accompanied by frequent gastric disturbances. The urine was free from albumen. A complete spectroscopic and bacteriological examination of the blood and secretions was made by Somerville and Carstairs Douglas with the following results. The blood showed the characteristic spectrum of methæmoglobin. The urine contained nothing abnormal except a slight increase of urobilin determined by Schlesinger's test. Further investigations of the blood by Douglas showed that it was extremely dark in colour and yielded a crimson solution when water was added to it, instead of the ordinary red colour. The spectrum of methæmoglobin was more distinct. The blood was also found to contain nitrites in considerable amount. The saliva tested at the same time gave a distinct reaction for nitrites, very much more marked than in the case of normal saliva. The faeces contained nitrites, but no methæmoglobin. These facts indicated that methæmoglobin was present in the blood and

absent from the faeces, that nitrites were freely present in the blood and saliva, but existed only in small amount in the faeces, and that the latter possessed no powers of converting normal ox-blood into methæmoglobin. This appeared to indicate a hæmatogenous formation of the nitrites, and raised the question whether the source of these bodies might not be bacterial. Bacteriological examination of the blood revealed the presence of an organism which was either the bacillus coli communis or some very closely allied organism of the colon group. The conclusions drawn were that the original source of mischief was in the bowel, and that a systemic infection had taken place whereby nitrites were continuously produced in the body in varying amounts—(thus probably explaining the fluctuations in the cyanosis)—and that the nitrites acting on the hæmoglobin constantly altered a varying amount of it into methæmoglobin, a condition in which oxygen is very firmly united to the hæmoglobin molecule and cannot be separated from it for the needs of the body cells. As a result of very careful and assiduous intestinal antisepsis a great improvement in the condition of the patient occurred. The patient was somewhat pale, with scarcely a trace of cyanosis, while the headaches and other nervous symptoms had become less marked. The percentage of hæmoglobin was 66, the number of red cells 3,600,000, the color index therefore .92. The leucocytes numbered 7900. Stained films showed that both erythrocytes and leucocytes were fairly well formed and manifested normal staining. No poikilocytosis was present and no erythroblasts could be detected. Further spectroscopic and bacteriological tests revealed an absence of methæmoglobin and of any organisms in the blood. Toxic processes having their origin in local infection by means of the bacillus coli are now widely recognised, and various forms of general disturbances produced by enteric and vesical changes brought about by this organism have been carefully studied. The bacillus coli may give rise to three stages of infection. There may be in the first place simple enteritis with diarrhoea, headaches and depression, showing a tendency to develop ulceration and liable to cause fatal marasmus. This condition is often removed by intestinal antiseptics, but such methods occasionally fail entirely. Until quite recently this affection was frequently fatal, but it can now be removed by irrigation of the colon by means of an operation on the cæcum. In the second place, a further development arises when as the result of changes in the intestine similar to those just referred to there is a formation of nitrites which, being absorbed into the blood, gives rise to methæmoglobin or sulphæmoglobin, and resulting cyanosis. Such a condition is susceptible of improvement under antiseptic treatment; but a review of the cases published in the Netherlands is not calculated to arouse sanguine anticipations. For this also surgical methods should be very carefully considered. The entrance of the bacilli into the blood and their multiplication there, with which the present paper has dealt, seems, lastly, to be but a further development of the same process.

PATHOLOGY.

Leukæmia in Poultry.

At a recent meeting of the Copenhagen Biological Society, Drs. V. Ellermann and O. Bang reported their investigations of spontaneous and experimental leukæmia in poultry (*Medical Record*, Feb. 8, 1908). With regard to leukæmia, it has up to now proved impossible to ascertain the true nature of the disease, some pathologists regarding it as an infection, while others consider it a sort of malignant new growth. As long as

experimental transmission had not been carried out successfully, no progress could be made on this question. It fell to the lot of these two investigators first to observe the leukaemia in a hen and afterwards to inoculate it into other poultry. The leukaemia of poultry has not been described before; it is very similar to that occurring in man. The increase in the leucocytes may become very considerable, the proportion of leucocytes to erythrocytes being as 1 to 2. The large mononuclear cells are particularly increased in number, and pathological forms are often seen (myelocytes). Besides the alteration in the blood, the liver and spleen become enlarged, the colour of the marrow changed to a grey-red, and the capillaries of the bone marrow and the liver are filled with leucocytes. In the liver infiltrations of myelocytes may be observed. Intravenous injections of an emulsion of organs from a case of spontaneous leukaemia produced in the course of three months leukaemia in healthy poultry. The organs presented the same alteration as in the spontaneous disease. The different pathological processes apparently take place as follows:—(1) Proliferation of the leucocytes in the capillaries of the bone marrow and the liver; (2) anaemia; (3) leukaemic alteration of the blood; (4) infiltrations in the liver. The investigators failed to demonstrate the presence of microbes. They are, however, disposed to regard the disease as an infection, and are now making further researches in order to decide whether this infection is due to leukaemic cells *per se* or to parasites.

Pathological Histology of Rabbits after Double Nephrectomy.

Lewis (*Journal of Medical Research*, December, 1907) reports some experiments undertaken with a view to showing directly the influence of destruction of the functions of the kidneys on the development of disease in the arterial system. While the arterial system is not injured by the destruction of kidney function in a degree that can be detected by present methods, constant changes are developed in other organs, particularly in heart and liver. In the literature these lesions have in part received mention, but no description or interpretation. Couvée, after double nephrectomy in rabbits, was unable to demonstrate an increase in toxic substances in the blood serum of the animals. The only pathological alteration that he considered important was a marked rise in the osmotic pressure of the serum. He stated that the animals showed pronounced fatty degeneration of the myocardium. Pfeiffer, on the other hand, found that the blood serum increased greatly in toxicity for mice and other rabbits. He found acute lesions in the gastro-intestinal tract as the most important change, and mentions an acute degeneration of the myocardium without any further statement of its nature. Lewis has further investigated the question, and concludes that complete destruction of the function of the kidneys in rabbits, either by double nephrectomy, ligation of both renal arteries or of both ureters, as a constant result causes the development of an acute parenchymatous fatty degeneration and interstitial proliferation in the myocardium, an accumulation of fat in the endothelial cells lining the sinuses into line, and the accumulation of a substance, probably fat, in the blood serum. It is hardly likely that changes of this nature would be caused by a rise in the osmotic pressure of the blood serum, as maintained by Couvée. Whether these changes are the results of the identical toxic substances which Pfeiffer demonstrated in the blood serum of nephrectomised rabbits, or whether the toxins are not the results of the tissue degeneration, is perhaps an open question. The present experiments are an in-

teresting illustration of the severity and character of the anatomical alterations which may be developed in the body of an animal by its own perverted forces to the exclusion of extraneous poisons or infectious agents. It is noteworthy that the alteration in the myocardium, while reflecting the short duration of the experiment in the extensive fatty degeneration of the muscle fibres and the cellular character of the newly formed interstitial tissue, involves the same factors that are concerned in some forms of chronic myocarditis. So far as these experiments may be assumed to bear on the problem of the origin of the chronic myocarditis associated with nephritis arising under natural conditions in man and animals, they tend to support the view that the pathological changes in the heart are a direct consequence of the kidney disease and independent in their origin of the vascular disease so often associated with both. The life of the animal after double nephrectomy is so short that the experiment can hardly be held to preclude the possibility that disease of the blood vessels might also be a direct although a later consequence of kidney disease.

The Germicidal Property of Milk.

Rosenau and McCoy (*Journal of Medical Research*, March, 1908), after summarising references to the literature on this subject, and recording the results of their own experiments, conclude that, judging by the number of colonies that develop upon agar plates, the bacteria in milk first diminish and then increase in number. This so-called germicidal property of milk occurs only in the fresh raw fluid. The author's results show for the most part that no actual reduction in the number of bacteria occurs. However, when compared with the controls, a restraining action is evident. The phenomenon, therefore, appears to resemble that of a weak antiseptic rather than that of a true germicide. When milk is kept warm (37°C.) the decrease is pronounced within the first eight to ten hours. After this time the milk has entirely lost its restraining action. When the milk is kept cool (15°C.) the decrease is less marked, but more prolonged. The decrease in the number of the bacteria is largely apparent, being due, at least in part, to agglutination. The bacterial clusters may, to a certain extent, be shaken asunder. This fact goes far to reconcile the discordant results of the various investigations upon the germicidal properties of milk. Those who used dilution methods with vigorous agitation broke up the bacterial clusters and thus obtained a larger number of colonies upon agar plates than those who plated directly with different technique. Some of the polymorphonuclear leucocytes in milk seem to possess the power of phagocytosis, judging by microscopic preparations. Phagocytosis, however, plays no essential part in the "germicidal" action of milk, for the decrease in number is quite as marked in the cell-free milk as in the sediment rich in leucocytes. The germicidal action of milk is specific. One sample restrained typhoid and staphylococcus pyogenic aureus, but not paratyphoid A or B. Dilution experiments demonstrate the enfeeblement of agglutinins rather than the presence of a germicidal substance in solution. The germicidal actions of blood and milk resemble each other in some particulars. Blood serum acts more quickly and much more powerfully than milk. Freezing milk for ten minutes and then thawing it does not affect the phenomenon in question. In one experiment freezing for 48 hours did not influence its restraining action upon typhoid, but destroyed it for *B. lactis aerogenes*. Boiling milk or heating it above 80°C destroys its "germicidal" properties. The effect of lesser degrees of heat varies with the micro-organism. Thus the restraining action for *B. lactis aerogenes* is

weakened by first heating the milk at 55°C. and almost destroyed at 60°C. For typhoid it is not affected by heating the milk at 60°C. for 20 minutes, but is materially influenced at 70°C. for 30 minutes. The "germicide" action of milk varies in different animals and in the milk from the same animal at different times. At most the action is variable and feeble. It cannot take the place of cleanliness and ice, but may be taken advantage of in good dairy methods.

PÆDIATRICS.

Some Points in Infantile Tuberculosis.

Dr. L. E. Holt (*Archives of Pediatrics*, Sept., 1907) says the frequency of pulmonary tuberculosis in infancy has not yet been fully appreciated, because we have not been accustomed to look for it with sufficient thoroughness. More careful application of our means of diagnosis has made possible the recognition of tuberculosis in very many cases where otherwise it is likely to be overlooked, and has emphasised the fact that pulmonary tuberculosis is a very common disease in infants. The means to which he refers particularly are the systematic search for the bacilli in the sputum in children who are known to have been exposed to infection, and the tuberculin test. A consideration of the latter will be reserved for a later report. During the 19 months ending May 1st, 1907, 67 cases of pulmonary tuberculosis were treated in the Babies' Hospital, 62 of these being infants under two years, and 15 under six months of age. The diagnosis rested upon finding the bacilli in the sputum in 54 of the cases; upon post-mortem findings in 10; and of the remaining 3, one had tuberculous meningitis (bacilli found in the fluid drawn by lumbar puncture), one reacted to tuberculin, and the third gave typical clinical symptoms of pulmonary tuberculosis. In only one-half of these cases was there any consolidation in the lungs present at the time that the diagnosis was made, and in nine cases there were no pulmonary signs whatever, the infants having been admitted for other conditions. A demonstration of the tubercle bacillus in over 80 per cent. of these cases, when, according to the physical signs, the disease was not far advanced, brings up the question of the different means employed in obtaining the sputum in infants. This has been assumed to be, if not impossible, at least a difficult and uncertain procedure. Infants do not expectorate, but cough up the bronchial secretion into the pharynx and swallow it. Sputum must therefore be obtained from the pharynx or the œsophagus; to seek for the bacilli in the vomitus, as has been recommended, is almost a hopeless task. For a time we tried passing a stomach tube and staining the œsophageal mucus, which adhered to the tube on withdrawal. This was satisfactory in some cases, but in many others it was not, as the mucus from the œsophagus was apparently rubbed off as the tube was withdrawn through the mouth. The method at present followed, and the one which has given the most satisfactory results, is to excite a cough by irritating the pharynx, and then to catch the sputum brought up into view upon a bit of gauze or muslin. The cough may be excited by a spoon or a tongue depressor, or better, by a small bit of muslin in the jaws of an artery clamp. Upon this the secretion is easily secured when it is brought into view by the cough. Muslin is better than gauze or absorbent cotton, swabs prepared as suggested are placed by the child's bedside, the child is picked up, and, if possible, the sputum is obtained. Inversion during the paroxysm of coughing sometimes causes the infant to discharge a considerable mass of mucus into a sputum cup. By the procedure mentioned it has not been found more difficult to obtain good sputum for

examination than in corresponding stages of the diseases in adults.

White Wine Whey in Infant Feeding.

Myers & Still (*Lancet*, Jan. 12, 1907; *Archives of Pediatrics*, April, 1908) are very favourably impressed with the value of sherry-whey or white wine whey as an infant's food, but state that, like any other food which contains alcohol, it should never be given to infants in larger quantities or continued for a longer period than the exigencies of the case require. They have often used it as the only food for a week or ten days, or given at alternative feedings for two or three weeks. The whey is prepared by heating 10 ounces of milk until just boiling, then adding 2½ ounces of sherry, heating the mixture until it begins to boil up, when it is removed from the fire and allowed to stand a few minutes. The curd is then strained off through muslin. The whey is used when only small quantities of food can be tolerated and when a stimulant is necessary. To an infant six weeks old a tablespoonful can be given every half hour or every three-quarters of an hour, and the amount and interval gradually increased until 2 ounces are taken every two hours. In exceptional cases they have given 3 ounces every three hours to infants six months old, and even 4 ounces every four hours for two or three days to an infant 12 months old.

Acute Poliomyelitis associated with a Diplococcal Infection of Spinal Sac.

Lancet, February 15th, 1908; *Pediatrics*, April, 1908. The case of a boy of 12 years is reported by W. Pasteur, A. G. Foulerton, and H. MacCormack. At the time of the report the patient was still crippled in the use of his lower limbs. The authors were able to make the following demonstrations:—Identification of a micrococcus in the spinal fluid withdrawn during life from a patient with symptoms of acute poliomyelitis; success in the production of an ascending motor paralysis in a rabbit after a prolonged period of incubation by inoculating this fluid into the subdural space; the demonstration on the death of the inoculated animal of a micrococcus in the cerebro-spinal fluid similar to that seen in the fluid from the human case; and further, by similarly inoculating another rabbit with an emulsion of cerebro-spinal substance and fluid from the first experimental animal, they have succeeded in reproducing a motor paralysis, again after a somewhat prolonged period of incubation, and again associated with the presence of the micrococcus in the spinal fluid. But while they have succeeded thus in obtaining direct evidence of the infective nature of the illness and of its association with a certain micro-organism, the evidence is incomplete bacteriologically, since they failed to obtain the micrococcus in culture on artificial media, and so were unable to give a complete description of it. The authors further believe that it has been established that there is a specific infective disease, of which acute poliomyelitis is a frequent and prominent, but not essential, feature. From the scanty information at our disposal it would appear that this specific disease has no clearly distinguishing primary features to enable one to differentiate it by its clinical symptoms from many other febrile conditions of probably infective origin which are frequently met with in practice, but which may not have sufficiently distinctive symptoms to enable a definite diagnosis to be arrived at. And so, whilst the serious complication of acute poliomyelitis when it has occurred has been at once recognised, the primary disease has not been differentiated hitherto, but has, in fact, usually been altogether overlooked.

MEDICAL MISCELLANY.

The "Brazil Medico" comments on the presence of the United States fleet at Rio as demonstrating anew the wonderful success realised in that city in exterminating yellow fever. Conditions have always been peculiarly favourable at Rio for the persistence of yellow fever, and even after the means to exterminate it had been shown the world, the authorities and the populace did not dream of the possibility of applying them to Rio, which for half a century or more had been one of the most deadly endemic foci. Our contemporary attributes the victory to the science and energy of one man, Dr. Oswaldo Creez, who organised the crusade against yellow fever, and in five years carried it to successful completion. The completeness of the victory was shown by the arrival of the American fleet. Fifteen thousand non-immunes, in the heart of the summer season, arrived in the American fleet, anchored in the harbour, landed, gave themselves up to amusements, diversions and irregularities of all kinds, and yet few scarcely ever remembered that they were in what less than four years ago was an endemic focus of yellow fever, lurking in wait, and especially deadly for recent arrivals.

A cat and dog hospital and dispensary have been established in the Cornell Medical School. These institutions for the treatment of the diseases and injuries of pet animals are absolutely free. The hospital has three floors; and there are reception rooms, isolation wards for contagious cases, a general ward, a kitchen, a bathroom, and a large, well lighted operating room, equipped with the latest devices in sterilising apparatus and surgical instruments. Dr. Frederick Gwyery, Cornell, Professor of Operative Surgery, is at the head of the hospital staff.

Dr. B. P. Grenfell has been lecturing in London on the discoveries of papyrus found in the ruins of Oxyrynchos in Egypt. These relics were found in mounds of rubbish in very little worse condition than when they were thrown away twenty centuries ago. From these papyri we find that "the simple life" was preached and practised in Egypt at the time they were written. Riches, fame, and "the share of a hundred cities" were nothing. To Pindar, a poet rather popular in those days, and since, "a mere shrub of oak" was enough, for with it he had "no lot in trouble or strife."

The professors of the medical faculty of the University of Göttingen have inaugurated a series of public lectures to educate the public in regard to the dangers of quackery. The first lecture was on "Medical Science and Quackery," and was presented in turn by three professors before a very large audience composed of all classes of society. A local daily paper had been commenting on the spectacle of the thousands flocking to the "miracle doctors," passing by the very gates of the University. The three Ausmeier brothers boast that they have more clients than all the professors together, although the Ausmeiers were only cabinet makers or cigar sorters before they began to treat the sick. The *Allg. Med. Ct. Ztg.* comments, however, that it is quite a question whether the anti-quackery lectures will do any good.

Since the prohibition of the use of goats' milk, Malta fever has decreased in a remarkable manner in the Island of Malta. The number of cases of Malta fever occurring among British troops in Malta and the number

of deaths during the years 1905, 1906, and 1907 were respectively: In 1905, 643 cases, 18 deaths; in 1906, 191 cases, 6 deaths; in 1907, 11 cases, 1 death. The reduction in the number of cases among the troops in Malta is solely attributed to the prohibition of the use of goats' milk in barracks and hospitals. Protective inoculation has not been used for the troops. The disease, according to information received from the board of health in Malta, continues to prevail among the native population, without any change or abatement.

A colony for lepers has been established at Palo Seco, a spot not far from Panama, and overlooking the Bay. Eight new buildings have been provided for the patients and their attendants. When the Government took charge of the canal construction, there were eleven persons with leprosy huddled together in a building on the outskirts of the city of Panama, where they were nominally under the care of the Government of Panama, and several other lepers were scattered through the zone.

The contract for the new building of the College of Physicians of Philadelphia, to be erected at Twenty-second and Ludlow-streets, has been awarded, and work is to start promptly. The estimated cost of the structure is \$300,000, and it will be a two-storey fire-proof building, 110 by 150 feet, containing a lecture hall, library, museum, portrait gallery and laboratory.

A new bi-monthly devoted to laryngology and allied provinces is to appear with the title of *Zeitschrift für Laryngologie, Rhinologie, und ihre Grenzgebiete*, under the editorship of Dr. Felix Blumenfeld, Saunusstrasse, 4 Wiesbaden, Germany. The list of collaborators is very large, and comprises the names of many of the most prominent workers in these specialities.

In its issue of March 10th, the *Münchener Medizinische* supplies as a coloured supplement to an article on Lumiere's Process of Colour Photography, by Wilms and Egenberger, reproductions of two plates made by this process. One picture is of a cancer en cuirasse, and the other of senile gangrene of the leg, the reproductions being made by the ordinary three-colour process. The merit of the procedure as applied to illustrative purposes consists in the fidelity with which the colours of the subject are produced, and in the simplicity with which the coloured picture to be copied is obtained.

After a long contest, the Maryland State Senate, on March 19th, passed a bill preventing Christian Scientists or Faith Healers from practising in Maryland without the diploma of regular physicians. The bill has already passed the House.

The Royal Hungarian Minister of the Interior offers the sum of 1000 crowns as a prize to the author of the best work on the etiology of trachoma. All essays, whether manuscript or published for the first time in 1907 or 1908, will be eligible for the competition, provided they are in English, Hungarian, French or German, and that they are received on or before December 31st, 1908, by the Minister of the Interior. Address: Belügyministerium, Budapest, Hungary. The jury will be appointed by the Minister, and the winner will be announced at the inaugural session of the sixteenth International Medical Congress to be held in Budapest August 29th to September 4th, 1909.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Tsetse Fly—Hospital Saturday Fund—The Royal College of Surgeons—King Edward's Hospital Fund—Sleeping Sickness—Medical Officers for the Asylums Board Hospitals—Infantile Mortality—Admission of Women to the Royal College of Surgeons.

THE Berlin correspondent of the *Morning Post* reports that the Association for the Preservation of Game in Africa met on April 25th to protest against Professor Koch's proposal that the big game in the African colonies should be shot down in order to exterminate the tsetse fly. The Duke of Ratibor, who occupied the chair, said that Professor Koch had recommended this drastic measure at the February meeting of the German Agricultural Council on the ground that big game are intermediaries in the propagation of this venomous fly. "Our association," he added, "which includes the best known African travellers and other persons with accurate and extensive knowledge of the conditions prevailing in Africa, does not share Professor Koch's views, especially as the total destruction of big game would seriously impede the economic development of the German colonies." Professor Matschie, of the Royal Zoological Museum, said that, according to Professor Koch, the tsetse fly was formerly prevalent over the whole of South Africa, but had disappeared in districts where gregarious game, such as the buffalo and the antelope, had ceased to exist. This claim, he added, could be only conditionally admitted. In the first place it had not been proved that the tsetse fly was once distributed over the whole of South Africa, and in the second place there were many districts where big game had been exterminated and where the tsetse fly was still found in large numbers. Professor Koch, he continued, might be right as regards the Transvaal and the Limpopo districts, for the tsetse fly, which was once prevalent there, had now disappeared; but it seemed equally probable that this disappearance might be due to the clearance of the bush and undergrowth. Dr. Sander, of the Army Medical Corps, also pointed out that the tsetse fly needed much shade, and preferred low, dense undergrowth, and cited cases coming within his own knowledge where the disappearance of the tsetse fly was contemporaneous with the clearance of the underwood. He had travelled over large tracts of Africa where there were absolutely no big game but many tsetse flies, and he contended that the pig, the donkey, the zebra, the wild cat, the dog, and other small animals were equally with big game intermediaries for the spread of the tsetse fly, and said that if Professor Koch's suggestion were adopted practically all the animal world must be exterminated. Herr Fritz Bley, who also possesses extensive personal knowledge of the conditions prevailing in South Africa, cordially supported the previous speaker's views, but thoroughly approved Professor Koch's proposal to exterminate the crocodile in order to combat the propagators of the sleeping sickness. He advocated the taming for domestic purposes—which he contended was feasible—of the African elephant, antelope and buffalo. The opinions expressed at the meeting are to be forwarded to the Colonial Office.

The Lord Mayor presided over the annual meeting of the subscribers to the Hospital Saturday Fund, held at the Mansion House on April 11th. The annual report showed that the income of the fund in 1907 was £27,140, being an increase of £680 over the amount

collected in 1906. The 23 local committees were responsible for a collection of £3529, and £105 was received from the result of football competitions. On January 18th a sum of £24,437 was distributed among 208 institutions. The Lord Mayor said that notwithstanding the discontinuance of the street collections in 1897 the receipts of the fund had increased each year, and the debt on the purchase of the freehold of the offices had been paid off. Having referred to the fact that the fund not only dealt with hospitals, but with dispensaries, convalescent homes, and other institutions—in addition to which it distributed letters for surgical appliances, the Lord Mayor said he regretted that the treasurer, Mr. H. N. Hamilton-Hoare, had had to retire through ill-health. A letter having been read from Sir Savile Crossley, detailing the work performed during 1907, the Lady Mayoress presented the medals to the members of the St. John Ambulance Association. Mr. Sheriff Wakefield moved—"That this meeting approves of the principle of collecting small contributions weekly in aid of the metropolitan hospitals and kindred institutions." The Mayor of Southwark seconded, and said that every firm possessing 20 employees should institute a collection for the fund. Canon Fleming moved a resolution commending the principles of self-help and mutual help as inculcated by the Hospital Saturday Fund, and said that during the 34 years of the fund's existence the working men of the metropolis had raised over £400,000 for its objects. Mr. Joseph Diggle seconded the resolution, which was carried unanimously; and a vote of thanks to the Lord Mayor and the Lady Mayoress concluded the proceedings.

A quarterly meeting of the Council of the Royal College of Surgeons was held on April 9th, under the chairmanship of Mr. Henry Morris, the President. Mr. Joseph Bernard Dawson, M.B., B.S. (Lond.), M.R.C.S., L.R.C.P., having passed the required examinations and conformed to the by-laws, was admitted a Fellow of the College. Mr. Thomas James Walker, M.R.C.S., consulting surgeon to the Peterborough Infirmary, and Mr. Henry Pottinger Keatinge, M.R.C.S., director of the Egyptian Government Medical School at Cairo, were elected Fellows of the College. Mr. Arthur Keith was admitted as conservator of the museum. A vote of thanks was given to Mr. R. H. Burne for his services in carrying on the duties of conservator of the museum during the illness and since the death of Professor Stewart, and he was appointed assistant conservator. The Jacksonian prize for the year 1907 was not awarded. The subject for the prize for the year 1909 will be "The treatment of surgical affections by vaccines and antitoxines." A report was received from Mr. J. Ward Cousins regarding the proceedings of the Central Midwives Board during the past year, and the thanks of the Council were given to him for his services as the representative of the College on the Board. The President reported that the following letter had been addressed to Sir Henry R. Swanzy, President of the Royal College of Surgeons in Ireland:—"Dear Mr. President,—At their meeting on March 12th the Council of this College had under consideration your letter calling attention to the proposed foundation of a new Irish University, and its probable effect upon the Royal College of Surgeons in Ireland; and we were desired by the Council to write and express to you the strong sense which they entertain as to the importance of maintaining in Ireland a Royal College of Surgeons, and the hope that in any bill which is brought forward to establish a new Irish University provision may be made to safeguard the interests of your College. The Royal College of Surgeons in Ireland, like its sister College in England,

was founded with the object of promoting the study of surgery and regulating its practice for the benefit of the public, and we venture to think that the history and traditions of your College amply show that continuous effect has been given to this primary object of its foundation. We highly esteem the important services to surgical education rendered by your College, through its school and examinations, and specially do we regard your Fellowship as of great value as a mark of surgical skill and knowledge; and we believe that in promoting the study of surgery, and maintaining a high standard of professional conduct among its practitioners, your College has been able to perform duties of great value to the State and public. We should therefore regard it as a misfortune not only to the profession but to the public if legislation were introduced which should result in diminishing or impairing the functions now exercised by the Royal College of Surgeons in Ireland. The Council of this College sincerely trust that you may be successful in your appeal to His Majesty's Government, and that the Royal College of Surgeons in Ireland may be able to continue that career of usefulness which has won for it so much distinction in the past.—We are, dear Mr. President, yours faithfully, HENRY MORRIS, President; RICKMAN J. GODLEE, W. WATSON CHEYNE, Vice-Presidents."

The annual meeting of the General Council of King Edward's Hospital Fund was held at Marlborough House on March 20th, under the presidency of His Royal Highness the Prince of Wales, President of the Fund. Lord Rothschild, the honorary treasurer, presented the accounts and balance-sheet for the year ending December 31st, 1907. Sir Savile Crossley, the honorary secretary, read the draft report of the Council for the year 1907. From this it appeared that the total receipts amounted to £484,069 10s 9d, and the total disbursements to £121,000, including the £1,000 entrusted to the Fund for distribution among convalescent homes by the London Parochial Charities. In addition to this, amalgamation grants of £2,750 became due during the year, and were paid. Since the inauguration of the Fund the amount spent on administration has been £1 5s 8d per cent. of the total amount received. During the year the sum of £212,500 was received from the executors of the will of the late Mr. Samuel Lewis on account of the legacy of £250,000 left to the Fund. The legacies from the late Mr. Alfred Beit of £20,000, the late Mr. John Nicholas of £10,000, and the late Lord Grimthorpe of £5,000, announced in 1906, were received, while a sum of £15,000 was received on account of the residue of the estate of the late Lieutenant-General G. E. Baynes, and a further sum of £10,932 on account of the residue of the estate of the late Mr. G. H. Heigham. The Fund have also to acknowledge the munificent donation of £100,000 from Mr. Andrew Carnegie. The amounts received in donations and subscriptions, excluding Mr. Carnegie's gift, show, as compared with 1906, an increase of £1,165 4s 5d. The Drapers' Company have generously increased their annual subscription from £1500 to £3000. The League of Mercy has contributed £18,000, being the same amount as in the previous year. Every eligible hospital which applied for a grant was inspected and reported upon. On July 26th, 1907, the bill for the incorporation of the Fund became law, and on the same day a meeting of the President and General Council was held, at which all the committees were re-appointed, and the same powers as they previously exercised, in so far as these powers were not inconsistent with the Act, were delegated to them. The efforts to amalgamate the five throat, nose and ear hospitals still continue, but the difficulties of negotiating with so many bodies are necessarily great, and it has not been

found possible yet to arrive at any definite conclusion. In connection with the proposed amalgamation between the North-west London Hospital and the Hampstead General Hospital the Fund made an offer with a view to the first-named being converted into an out-patient department in connection with the Hampstead General Hospital. The Fund removed in the course of 1907 to new offices, 7 Walbrook. The adoption of the report was moved from the chair by the Prince of Wales. The resolution was seconded by the Lord Mayor, supported by the Chairman of the London County Council and the Chairman of the Executive Committee, and carried unanimously. The proceedings terminated by a vote of thanks to the Prince of Wales, moved by the Bishop of Southwark, and seconded by Lord Revelstoke.

Colonel David Bruce read an interesting paper on the causes of sleeping sickness at a meeting of the African Society, held at the Royal United Service Institution on March 17th. There was a large and distinguished audience, and the chair was occupied by Sir West Ridgeway. Colonel Bruce, whose lecture was illustrated by many lantern slides, said that sleeping sickness had been known on the West Coast of Africa ever since those parts were known, but for long it was looked upon more as a pathological curiosity than as a disease with—as they knew now—a great power for evil. It was first discovered in Uganda in 1901, and the most common theory was that it was brought there by Emin Pasha's Soudanese soldiers, their wives and followers (some 10,000 in all), who settled then at Busoga. The proven facts were that sleeping sickness was caused by a small blood parasite, a trypanosome, something like that which was carried from animal to animal by the tsetse fly; that this fly took the trypanosome from the blood of wild animals and passed it on to horses; and that if trypanosomes were injected into the blood of a monkey it suffered from sleeping sickness. It was shown that in Uganda the distribution of sleeping sickness and the distribution of a particular kind of the tsetse fly were the same, and that the tsetse fly only flourished on that part of the lake shore where forests and deep jungle growths came near. The fly required clear water and forest. It was on the edge of the lake that the natives held their markets with the islanders, and were bitten by the tsetse fly as they lay on the shores. Sleeping sickness was slowly spreading, owing to the demand for native labour in Africa, and was a practical menace to the opening up of Central Africa. At present it seemed certain that this disease was only carried by that species of tsetse fly called *glossina palpalis*, so that *glossina moritans*, which was found much more south, in the Transvaal and Rhodesia, did not threaten those countries. As to preventive measures, Professor Koch had recently brought forward the theory that the chief food supply of *glossina palpalis* was crocodiles' blood. That theory required proof. *Glossina palpalis* existed in places where crocodiles did not exist, and in the laboratory it fed on any animal food offered. But as it seemed that this fly could only live where there were dense forests, near to clear water, good work might be done by clearing trees near the great ferries of the lakes. As to cures, there was no single well-authenticated case of cure of the disease in man, and all attempts to render him immune by an anti-toxic serum had failed.

At the usual fortnightly meeting of the members of the Metropolitan Asylums Board, held on March 14th, under the presidency of Mr. Helby, the question of the dearth of candidates for vacancies arising in the staff of assistant medical officers in the Board's service came up for discussion. It was acknowledged by the medical superintendents of some of the asylums to whom the matter had been referred that the service of the Board

is unpopular in the profession, and that it was a common practice of the leaders of the profession to advise young men against the Board's service. The superintendents were unanimous in thinking that certain regulations which had been laid down from time to time were responsible for the paucity of candidates. A report was now presented by the Asylums Committee in which the regulations were dealt with, and in which the opinion was expressed that the regulation for annual re-election of assistant medical officers after three years' service and that requiring the officer receiving a visitor to notify the clerk to the Board immediately, and making a charge for refreshments supplied to visitors, caused considerable vexation to the assistant medical officers. The Committee were assured that much harm was thereby being done to the service by making those posts unpopular. No regulations of that kind existed at the London County Council asylums or at the county asylums. They recommended the rescission of the standing order relating to the annual re-election after the third year of such officers. That was agreed to. A second recommendation was as follows:—"That, provided no rations be issued in excess of the usual quantity, no charge be made for visitors to the assistant medical officers, but that such officers be empowered to purchase extra rations from the stores if required." In the course of the discussion which ensued, the legality and the practicability of working such a recommendation was questioned, and it was urged that the adoption of the recommendation would abrogate in favour of the asylums' assistant medical officers an established principle of general application. In the result the question was referred to the General Purposes Committee for consideration and report.

The National Conference on Infantile Mortality concluded its labours at Caxton Hall on March 25th by adopting the following important series of resolutions:—"That this Conference expresses its appreciation of Parliament having passed the Notification of Births Act, 1907, and urges upon all local authorities the importance of adopting the Act and of appointing qualified women to carry out its provisions." "That in order to combat the prevalent ignorance, resulting in wastage of infant life and injury to the health of many survivors, the Conference urges upon the Board of Education and upon educational authorities generally the importance of securing to all girls in every grade of school a satisfactory training in domestic and personal hygiene and in the duties of womanhood." "That the Conference being convinced of the injury done to infant life and health through infants being taken into public-houses, urges upon Parliament the necessity of providing such legislation as will prevent this." "That the Children's Bill be amended so as to empower local authorities to charge upon the rates the cost of carrying out the existing statutory provisions for the prevention of cruelty to children." "That this Conference is of opinion that Boards of Guardians ought to make great use of their existing powers to adopt the children of incorrigible parents." "That all preparations offered or sold as foods or drugs for infants should be certified by a Government analyst as non-injurious, and that each packet should contain its analysis, and that provisions similar to those of the Fertilisers and Feeding Stuffs Act should be applied to foods and drugs sold purporting to be for the use of infants." "That this Conference reaffirms the resolution of the former Conferences that the Midwives Act of 1902 be extended to Scotland and Ireland." "That in view of the unsatisfactory conditions under which milk is produced and distributed, the Conference being of opinion that immediate amendment of the law is desirable, urges upon Parliament the necessity of at

once taking such steps as are necessary to effect this." "That this Conference shall continue, as a committee, to give effect to the foregoing resolutions, with power to remit to an executive committee to carry out the same."

An ordinary meeting of the Council of the Royal College of Surgeons of England was held on March 12th, the President, Mr. Henry Morris, being in the chair. The deaths of Sir Alfred Cooper and Mr. Reginald Harrison were reported, and the usual votes of condolence with the relatives of these gentlemen were passed. Mr. W. A. Maggs, M.R.C.S., L.D.S., Dental Surgeon to Guy's Hospital, was re-elected a member of the Board of Examiners in Dental Surgery, and Mr. Rickman J. Godlee was appointed the representative of the College of Surgeons on the Council of University College, Bristol, in the vacancy caused by the resignation of Mr. Thomas Bryant. The President stated that he had fixed July 1st as the date for closing the poll of the fellows and members on the subject of admitting women to the diplomas of the College. With regard to this question, the following notice is to be circulated to fellows and members:—"The Council, although they have decided that it is desirable to admit women to examination for the diploma of member, and although they have power to act upon this opinion, are anxious, in accordance with a resolution passed at a meeting of the Council on May 9th, 1907, to obtain the views of the fellows and members on the matter. In regard to the corporate position of women, if the diplomas of the college be granted to them, the Council have taken legal opinion and are advised that while under the Medical Act of 1876 women can be admitted as members or as fellows, no woman so admitted would thereby be entitled to take any part in the government, management, or proceedings of the college (a) In your opinion is it desirable that women should be admitted by examination as members of the college? (b) In your opinion is it desirable that women after admission to the membership should be admitted by examination as fellows of the college?"

POISONING BY TABLETS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—A short time ago I had a case of strychnine poisoning in a child, two years of age. He had been given a bottle of Easton Syrup tableoids to play with—broke the bottle and ate some of the sweets, with the result that he lost his life.

I have not infrequently been into houses and seen perchloride of mercury tablets lying loosely about. I have the details of six other cases of poisoning last year from the present loose sale of dangerous drugs in tablet form.

I should esteem it a great favour if any of your readers who have had cases of poisoning from tableoids (fatal or otherwise) would kindly send me brief particulars.—I am, etc.,

LEONARD W. BICKLE.

18 North Terrace, Adelaide.

Population of West Australia.—The population of West Australia during the month of April was increased by 1290 souls. This is the largest increase for many months past. The population was estimated at 156,267 males and 111,020 females; total, 267,287. During April the births registered numbered 662, and the deaths 261. For March and April combined the increase in population was 2429.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of May, 1908:—Registered deaths of residents in the metropolitan municipalities (exclusive of benevolent asylum deaths) during April numbered 429. This figure has been arrived at after distribution to their proper districts of all deaths in general hospitals and hospitals for the insane. The mortality is unusually low, and is equivalent to an annual death-rate of 9.05 per 1000 living, or when corrected by the inclusion of the metropolitan proportion of the benevolent asylum deaths, 9.49 per 1000. Diarrhoeal diseases (diarrhoea, dysentery and enteritis) caused 45 deaths. This is rather above the average number of deaths from these causes during May. Fifteen deaths were due to the group of infectious diseases. They were distributed as follow:—Measles, 1; scarlet fever, 3; influenza, 1; diphtheria, 2; typhoid fever, 2; cerebro-spinal fever, 1; plague, 2; puerperal fever, 3. Phthisis with 32 deaths, Bright's disease with 23, respiratory diseases with 36, diseases of the heart and blood vessels with 63 deaths, all caused unusually low mortalities, but cancer was more fatal than usual, and was responsible for 43 deaths. Deaths of children under 1 year of age numbered 94, which is equal to an infantile mortality rate of 83 per 1000 births. The chief causes of infantile mortality were: Diarrhoeal diseases 29, prematurity 26, developmental diseases 19, accident 3, respiratory diseases 5. Two hundred and thirty-seven attacks of notifiable infectious diseases were notified. Scarlet fever was responsible for 90 attacks, diphtheria for 95, and typhoid fever for 50. Two cases of plague were notified from North Sydney and Waterloo, both of which terminated fatally. Within the city of Sydney 14 cases of pulmonary consumption were notified under the City Council's by-laws, and eight dwellings were disinfected by the municipal authorities after the death or removal of phthisical persons.

Prevalence of Typhoid.—An elaborate analysis of certain facts relative to the severe prevalence of typhoid fever during the recent typhoid season has been made by direction of the Board of Health. The result was to show that prevalences of typhoid are local—that is to say, they occur in the larger centres of population; in other words, the causes of them are not natural, are not due to varying rainfall, excessive temperatures, or factors of that kind, but to local habits and local conditions of life. For the existence of the conditions which lead to epidemics of typhoid, the

manner in which municipal government is administered by local councils in relation to public health matters appears to be solely responsible. The fact, as it appears to the board, seems to be that in comparatively few districts is intelligent attention turned to this matter in an effective way. The crucial point in relation to typhoid fever turns upon efficient scavenging. It is not pretended by the Board of Health that causes of small outbreaks of typhoid fever which are independent of scavenging never arise, but regarding populous districts in the State as a whole, attention to that matter is the one condition without which all other efforts would be useless. The board is of opinion that there should be a general reform in this matter, but it is well aware that the efforts of a supervising authority, even when backed by the law, can effect but temporary and incomplete improvements in the face of apathetic aldermen. It has, for example, during a good many years past caused complete inspections to be made on systematic lines of the important municipalities in the State. Every detail of administration which by statute has been conferred upon municipalities is on these occasions inquired into, critically examined, and reported on. After consideration by the board, the more essential matters of sanitary administration are brought to the attention of councils with a view to amendment of faults. But the board's experience is that the essential fault is the local apathy already referred to. That this attitude on the part of many councils towards the public health of the people who are entrusted to them should be ended all will agree, and the Board of Health may be trusted to exercise its powers to the utmost.

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, May, 1908:—

Colour	..	..	..	..	25° Brown.
Clearness	..	..	..	..	Marked.
Odour	..	..	..	..	Nil.
Suspended matter	..	..	..	..	Very slight.
Total solids	..	..	..	..	8.2000
Chlorine	..	..	..	..	3.2000
Free ammonia	..	..	..	..	.0000
Albuminoid ammonia	..	..	..	..	.0142
Nitrogen as nitrites	..	..	..	..	.0000
Nitrogen as nitrates	..	..	..	..	.0036
Oxygen absorbed in 4 hours	..	..	..	..	.0903
Permanent hardness	..	..	..	..	1.9
Total hardness	..	..	..	..	3.25

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during May, 1908:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C
			Suspended Solids	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab-sorbed in		Albuminoid Ammonia.	Oxygen ab-sorbed in Four hours.	
							Nitrites	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. Faint	Nil	1.12	12.0	1.560	.127	.031	.840	—	.498	90.1	86.4	No decomposition
Folly Point..	.. Slight	Faint	1.08	9.4	2.585	.065	.004	.162	—	.381	91.5	87.0	„ „
Balmoral ..	.. Faint	Nil	.36	10.4	.360	.060	.038	1.742	—	.342	93.9	88.9	„ „

Quarantine Station.—The Federal authorities propose to remove the Sydney quarantine station to Broken Bay. The residents of Manly have from time to time advocated its removal from North Head on the ground that the growth of Manly was hampered by its proximity. Inquiry has been made on behalf of the State Government as to the expediency of removing the station to the site now proposed, but the scheme was officially opposed on the ground of expense. It is anticipated that the cost will not deter the Federal Government from making the change, which is admitted, apart from the question of the expenditure involved, to be highly desirable.

Victoria.

Vaccination.—Dr. Norris, chairman of the Board of Health, in advocating compulsory vaccination, said that in Victoria every endeavour has been and is being made to remove the objection which arises from the use of human lymph. An adequate supply of calf lymph is available free of charge, and an expert post-mortem examination of every calf is made before the lymph is accepted as fit for use. At times many pounds worth of lymph is destroyed on the slightest suspicion of there being anything detrimental to health evident in the calf from which the lymph is taken. Further, the lymph is treated for several weeks so as to render it perfectly safe.

Typhoid Fever.—The epidemic of typhoid fever in this State is decreasing satisfactorily. There was a falling off of over 60 cases since the last report. There were only 72 cases, with 3 deaths, in the whole State during the fortnight ended May 3rd. The average for a similar period during the last four years was 47 cases. The epidemic was most severe in country districts, the returns showing that there were less than the average number of cases within the metropolitan area.

Precautions against Plague.—For months past the possibility of a visitation by plague from northern ports has been a subject of concern to the health authorities. Traps for rats which infest steamers, particularly those carrying fruit, have been liberally distributed, and their live contents have been subjected to bacteriological examination, generally with negative results. Recently the port officer stopped the steamer *Innaminka*, from Cairns, and ordered the captain to anchor. It was explained that the steamer would have to undergo a disinfecting process before approaching the wharf, as certain rats taken from on board and examined after the vessel left Sydney proved to be in a state of disease that was suggestive of future infection on shipboard being likely. The temporary detention of the steamer was to prevent any possible bubonic outbreak occurring in Victoria. When the *Innaminka* was in Sydney rat destruction was being carried out, and it was found that at least two rats were infected with plague.

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health reports were received from the Bureau of Health, Philippine Islands, respecting epidemic diseases. Bulletins of plague were before the board from Brisbane, Sydney, Mauritius, Egypt and India. The infectious disease returns showed seven cases of tuberculosis at Belair, three at Norwood, and one at each of the following places:—Adelaide, Birken-

head, Port Pirie, Bowden, Bowden-on-the-Hill, Maitland and Port Elliot. Four cases of typhoid fever at Port Pirie, three at Adelaide, and one at each of the following places:—Point Macleay, Lyndoch, Parkside, and West Thebarton. One case of diphtheria at each of the following places:—Adelaide, Maitland, and Port Adelaide. One case of scarlatina at each of the following places:—Adelaide, near Saddleworth, and Thebarton. One case of erysipelas at each of the following places:—Wayville, Cleland's Gully, and Port Pirie. The infectious disease mortality returns showed five deaths from tuberculosis at Adelaide and one at each of the following places:—Hundred of Gumbowie, Rowland's Flat, Lower Mitcham, Grunthal, Koolunga, Payneham, Southwark, Menindie, Nailsworth, and Glenelg. One death from typhoid fever at each of the following places:—Adelaide, Thebarton, Kadina, Petersburg and Burra. One death from erysipelas at Woodville. One death from cerebro-spinal meningitis at Adelaide.

Health of Adelaide.—The Medical Officer of Health reported that during the fortnight ended May 23rd there were notified five cases of typhoid fever, one of diphtheria, three of scarlet fever, one of erysipelas, and four of pulmonary tuberculosis. Of the five cases of typhoid fever three were imported from the suburbs and country for hospital treatment. Of the remaining two cases, one was removed to the hospital for isolation and treatment, and one was isolated in hospital where infection was contracted. The case of diphtheria was isolated at home. Of the three cases of scarlet fever, one contracted infection in hospital, and was isolated there, and two were isolated at home. The case of erysipelas was imported from the suburbs for hospital treatment. Of the four cases of pulmonary tuberculosis one was imported for hospital treatment. Of the remaining three cases, one died and two were at home under the city trained nurse's supervision. The city trained nurse made 86 visits to 45 cases during the fortnight, and finally disinfected ten houses. Of the 45 cases under her care, two were suffering from typhoid fever, two from diphtheria, two from scarlet fever, and 39 from pulmonary tuberculosis.

West Australia.

Diphtheria.—An outbreak of diphtheria of a serious character has occurred this season on the eastern goldfields. Several schools have in consequence had to be temporarily closed. Special precautions are being taken to stamp out the trouble. There have been very many cases at Kalgoorlie, Boulder and Coolgardie.

Public Health Matters.—A conference has recently been held of representatives of the Central Board of Health and the various local boards of health to discuss the administration of the Health Act, the adulteration of food, and the discrepancies which have frequently occurred in the results of analyses of milk and dairy administration in the metropolitan area, and other matters. Last year a series of lectures on hygiene and sanitation were given, and they are being repeated this year at the technical schools.

Milk Adulteration.—A case was recently before the acting Police Magistrate in which a person was charged with having sold a tin of Bacchus Marsh milk "not of the nature, quality, and substance demanded by the purchaser." The magistrate said the sole point was whether the boric acid which was put into the milk as a preservative

was a substance injurious to health. After careful consideration of the evidence of the experts he did not think he could hold that the boric acid, as used in this case, was a substance injurious to health. He thought, however, that the local board of health was justified in making the prosecution.

Queensland.

Bubonic Plague.—Dr. B. B. Ham, Commissioner for Public Health, reports for the four weeks ending June 6th:—*Brisbane.*—1. *Plague in Man.*—Case No. 11.—E.G.A., aged 32 years, a produce merchant residing at Clifton, a district situated 71 miles from Brisbane by rail. Attacked May 27th. Had visited Brisbane produce stores in Roma-street, city, from May 22nd to 26th. Two guinea-pigs inoculated died three and five days respectively after inoculation. Microscopical examination revealed the presence of bac. pestis. No infected rats were found on the premises of produce stores visited. During the period 1595 rats and 311 mice were destroyed, 1356 rats and 296 mice were examined, and 20 rats were found to be infected.

Tasmania.

Diphtheria.—At the meeting of the Local Board of Health, a letter was received from the chairman of the board of management of the Hobart General Hospital stating that, as in all probability the ward specially set apart for the treatment of diphtheritic cases at the institution would be occupied in a few days time, he desired to know whether the Local Board of Health was desirous of continuing the existing arrangement as to the reception of cases of this disease at the hospital. The letter further stated that the lady superintendent, in her report of May 26th, stated that if it was decided to continue taking in cases of diphtheria, it would be necessary to obtain additional nurses, as so much diphtheria nursing was depriving the hospital nurses of much of the general training for which they signed, in addition to preventing them from attending the usual course of lectures given for their instruction. The Mayor said he was very pleased to be able to say that there were no diphtheritic cases in the hospital at the present time. The two patients being treated at Vaucluse were now convalescent, and it was hoped they would be about again at the end of the week. The Council had already decided that any future cases should be treated at the General Hospital until such time as the new hospital had been erected. The secretary of the hospital had informed him that an extra charge would henceforth be made for the treatment of such cases, but he (the Mayor) thought that in view of the circumstances the Council would be willing to meet the additional cost.

Public Health in New Zealand.

(Abstract of the Annual Report of Dr. J. M. Mason, Chief Health Officer, for 1907.)

General.—The appointment of Dr. Valintine to the high position of Inspector-General of Hospitals, consequent on the death of Dr. MacGregor, has necessitated a re-arrangement of the duties of several officers. Dr. Frengley has been transferred from Auckland to Wellington, and Dr. J. S. Purdy has been appointed to the Auckland Health District. For some time past it has been evident that a redistribution of the sanitary inspectors would make for greater efficiency and economy. Owing to the repeated small outbreaks of infectious disease on the west coast it has been necessary to send an officer from Auckland. This involves a

considerable expense for locomotion and travelling expenses. It is proposed to station an inspector in or near Whangarei, and another at Thames. In this way the Auckland health district will be fully equipped and the cost of administration lessened. An inspector has been placed in charge of the Nelson district, and as soon as it is convenient I propose to station another on the west coast of the South Island.

Vaccination.—Last year out of 24,321 children born, 4486 were vaccinated, 2964 were exempted, leaving 16,871 unaccounted for. It will be seen that over 81 per cent. of the children born in 1906-7 are unprotected against smallpox—a deplorable state of things. Apparently a large section of the community are passively breaking a law passed by the Legislature, while a noisy few are actively opposing it. To prosecute 69 per cent. of the parents is impracticable; not to carry out the law is demoralising to every one. The time has come when all parents who have not had their children vaccinated, or obtained a certificate of exemption, should be brought before the magistrate, or—and I say it with the deepest regret—alter the law so that even the semblance of compulsion shall cease.

Cerebro-spinal Meningitis.—In view of the occurrence of a large number of cases of this disease in America and Britain, it was decided to place it upon the list of notifiable diseases. So far only one case has occurred in Australasia; but in view of the high mortality which this disease always exacts, and the rapidity with which it spreads when once it obtains a footing, it is well to be prepared.

Hydatids.—There has been a gradually increasing number of cases amongst human beings in the colony, and at the suggestion of Dr. Barnett, lecturer on surgery at the Otago University, this disease has been placed upon the list of those required by law to be notified.

Medical Attendance on Maoris.—The transference of the control of the medical attendance upon the Maoris to this Department has resulted in greater efficiency and economy. There are 38 medical men throughout the colony who are paid set sums from £25 to £100 per annum for attending to indigent Maoris. While the men in no instance can be said to be overpaid, there is need of re-arrangement and adjustment. The medical attendants now report quarterly as to the work done, and much valuable data with respect to the ailments of the Maoris are being obtained. Effort has been made towards getting those sick natives who cannot be looked after in their own homes admitted into the general hospitals. There are two factors which operate against this. First, the Maori has an idea that all such institutions are only suitable for the treatment of the white man's ailment. This idea is gradually breaking down. The second factor is the disinclination on the part of some hospital boards to accept Maori patients, because the Maori in many districts does not pay rates, and naturally those who do offer some objection to providing for natives in the rate-supported hospitals. With the attachment of Dr. Te Rangi Hiroa to the staff of the Department a more intimate supervision of the health and sanitary conditions of the Maori has been possible. Dr. Pomare has been placed in charge of the South Island and that portion of the North as far as the Wellington and Hawke's Bay provincial districts. Dr. Te Rangi Hiroa has been stationed at Auckland, and, although his area is smaller, he has plenty of work, inasmuch as a large portion of our native population reside north of New Plymouth.

Illicit Practice of Medicine and Sale of "Patent Medicines."—There was passed last year a modest amendment to the Postal Act which, under the administration of the Secretary to the Post Office, has effected an unexpected amount of good. The law reads as follows:

—"9. (1.) If the Postmaster-General has at any time reasonable ground to suppose any person in New Zealand or elsewhere to be engaged—(a) In receiving any money or valuable thing as the consideration for any assurance or agreement, expressed or implied, to pay or give any money or valuable thing on any event or contingency relating to any horse-race or other race, fight, game, sport, or exercise, or as the consideration for securing the paying or giving by some other person of any money or valuable thing on any such event or contingency as aforesaid; or (b) in promoting or carrying out any scheme connected with any such assurance or agreement, or any lottery, scheme of chance, or unlawful game; or (c) in receiving money under pretence of foretelling future events; or (d) in any fraudulent, obscene, immoral, or unlawful business or undertaking; or (e) in advertising in direct or indirect terms the treatment of diseases of the sexual organs,—then the Postmaster-General may, by notification under his hand in the *Gazette*, order that no postal packet addressed to any such person (either by his own or any fictitious or assumed name), or to any address without a name, shall be either registered, forwarded, or delivered by the Post Office. (2.) Such notification shall specify every such name, whether real, fictitious, or assumed, and every such address in respect of which such order is made. (3.) Until such order is in like manner revoked no such postal packet shall be registered, forwarded or delivered, nor shall any money-order be issued in such person's favour, or be paid to him." Every newspaper of standing in the colony has agreed not only to accept the Postmaster-General's ruling gladly, but has endeavoured in every possible way to throw out advertisements which were demonstrated to be proclaiming wares or services which were not in the best interests of the State.

Infectious Diseases.—There has been no epidemic of any serious nature during the past year. Measles appeared during the early part of this year in the South Island, but, fortunately, there were not many deaths. Scarlet fever has again broken out, but so far the number of cases has been small compared with past years. Provision for the isolation of infectious disease has been made in all the large centres, with the exception of Dunedin. The long-standing difficulty with respect to the selected site has been settled, and soon the chain will be complete.

Infectious Diseases among School Children.—Several of the common infectious diseases, such as scarlet fever, measles, diphtheria, etc., are acknowledged to be in a large measure diseases of early life. As soon as a scholar is suspected of suffering from an infectious disease he should be sent away from school. Most committees and schoolmasters understand this; but this equally important fact is not so well appreciated: that unless some disinfection of the room which the patient occupied is made, the danger to the other children is not removed by prohibiting the suffering child from coming to school.

Medical Inspection of Schools.—By the authority of the Hon. J. McGowan (then Acting Minister of Public Health) I submitted a system of inspection to the Education Department and all the education boards, school inspectors, schoolteachers, the medical and the dental professions. In every instance the scheme was approved. The private schools in England and Scotland have long done more than is suggested should be done under the proposed system. The colleges in New Zealand carry it out. As far back as 1860 Germany instituted these examinations, and they obtain in Belgium, France, Switzerland and the United States.

Japan has more medical inspectors of schools than the whole of the old world put together—6500. I have suggested that instead of the medical inspectors sorting out the abnormal from the normal, this should be done by the teacher. The number of cases that will be missed by the teacher will be small, for the teachers, with few exceptions, do take a great interest in the physical welfare of their pupils, and many of them are actually doing the work which would be done by them under the suggested scheme. It is proposed that the schoolmaster should keep a list of all his pupils who, in his opinion, are below normal in health. This list would be given to the medical inspector at his visit. Thus, instead of having to examine the whole school his time would be spent over, say, some 10 or 12 per cent. With this reduced number it would be possible, I think, for four or five officers to examine all the schools in the colony. There would certainly be plenty of work for them to do; but, at any rate, the scheme might be begun with such a staff.

Control of Milk consumed in the Colony.—The relation between infantile mortality and impure milk has been acknowledged by sanitarians the world over. As has been pointed out, gastro-enteritis, diarrhoea, etc., are very often the resultant of the imbibition of impure or unsuitable food. In a country such as this there should be no difficulty in so arranging matters as to place milk outside the circle of contaminated or depreciated food. Great care, energy and skill is exercised in seeing that our customers overseas get none but the best butter and cheese; little, if any, is expended upon the milk consumed by our own people. Something has been done, but until the Pure Food Bill has been placed upon the Statute-book our efforts to secure that this most important article of diet shall come to the consumer in a clean and wholesome condition must fail. Many public men are beginning to take an interest in this matter. The Christchurch City Council went to great trouble to consider the question of establishing a municipal clearing-house; but for the fact that they considered that fresh legislation was necessary in order to make the scheme a success, the first municipally-controlled milk supply would have been an accomplished fact. It is idle for a municipality to erect cool-chambers, screening, filtering and pasteurising apparatus, if any milkman is permitted to sell within the municipal area. Power ought to be given to municipalities to say that no milk can be sold in their districts unless it has passed through the appointed conduit. Last year 70 out of every 1000 male children born, and 54 out of every 1000 female children died before attaining the age of one year. That is, 1 in every 14 boys born, and 1 in every 18 girls, died within 12 months of their birth. Now, though this infant mortality is low compared with England and Wales (138 per 1000), France (144 per 1000), Italy (168 per 1000), or Hungary (with 212 per 1000), yet an analysis of the ailments which bring about the deaths of these 70 boys shows clearly that ill feeding is at the bottom of a large majority. Diarrhoea, convulsions, enteritis, and marasmus accounted for 589 deaths amongst children. With a pure-milk supply and proper care on the part of the parents most of these deaths would have been averted. The scheme of supplying humanised milk in Dunedin, which has been brought about by the enthusiasm and agency of Dr. Truby King, has been productive of very great good.

Pure Food Bill.—The necessity for bringing the laws regulating the sale of foods and drugs into accordance with the standards set by other countries has been obvious to all interested in this most important matter.

The draft bill submitted is the result of the careful consideration of several recent Acts passed in various parts of the world. While no honest trader should be hampered or interfered with, the safety and interest of the consumer must be conserved. If a tin of alleged "finest pepper" contains 50 per cent. of flour, this fact should be clearly stated on the label. No legal difficulties should be placed in the way of securing that the purchaser knows exactly what he pays for. Alcoholic beverages should be of assured purity, and easily ascertained penalties should be attached to the sale of adulterated articles of food or drink. The fact that manufacturers of foodstuffs throughout the colony have asked for such legislation is evidence of the fact that they do not fear anything from stricter laws. No country takes greater precautions with regard to the intrinsic value of foodstuffs exported than does New Zealand. The time has come when the people of the colony should be able to place implicit reliance upon the goods offered for sale within New Zealand as our customers overseas do with respect to the foodstuffs exported.

Vital Statistics.—Births: The number of births registered in the colony during 1906 was 24,252, or 27.08 in every 1,000 persons living. The number of births is 750 in excess of that for the year 1905, an increase of 2.41 per cent. From 1882 until the year 1899 there was a regular fall in the birth rate. The number of births registered in a year reached 19,846 in 1884, and after falling to 17,876 in 1892, has risen to 24,252 in 1906, as stated above. A declining birth rate is noticeable in many civilised countries, and attention has been drawn by statisticians and political economists to the serious consequences that may result. It is certain that fertility among women in New Zealand is decreasing, from whatever causes. The proportion of illegitimate births to every 100 births for this colony has been very steady for the period 1897-1906; the difference amounts only to 0.26 per cent. on a comparison of the first and last years. The total number of births registered was 19,135 in 1887 and 24,252 in 1906, while the illegitimate births rose from 617 to 1132. The causes that led to the fall in the birth rate certainly did not greatly affect the number of illegitimate children. Deaths.—The deaths in 1906 numbered 8339, being equivalent to a rate of 9.31 in every 1000 persons living, as against 9.27 in 1905. The lowest rate experienced since the year 1887, when the deaths were 10.29 per 1000 of the population, was that for 1896 (9.10). The deaths in 1906 from specific febrile or zymotic diseases amounted to 446, a proportion of 4.98 in every 10,000 persons living, and an increase of 55 on the number of deaths in 1905, when the proportion was 4.49. As in 1904 and 1905 a feature of last year's mortality is the comparative freedom of the colony from some of the epidemic diseases most fatal to children, viz., measles, scarlet fever, scarlatina, and whooping-cough, the total deaths from these causes being only 56, against 478 in 1903. The diseases in this class that have caused the greatest mortality during the past ten years are stated in the table that follows. Of these, diarrhoeal complaints were by far the most fatal, causing 2045 deaths in the decennial period. Influenza comes next, with 1362 deaths; typhoid fever third, with 762 deaths; whooping-cough fourth, with 1581 deaths; measles fifth, with 516 deaths; diphtheria next, 433 deaths; scarlet fever, with 242 deaths; and puerperal fever, with 209 deaths. The mortality from measles for 1897 and 1898 was not great, but rose to 137 deaths in 1899, falling again to 9 deaths in 1900 and 6 deaths in 1901, again rising to 134 in 1902, and further to 143 deaths in 1903. During 1904, 1905, and 1906 this disease was not epidemic in the colony, and caused only 10, 8, and 12 deaths respectively. From scarlet

fever and scarlatina there were only 18 deaths last year, as compared with 131 in 1903. The mortality from diphtheria, which was 49 deaths in 1897, fell to 35 deaths in 1906, the figures for the intervening years not presenting any striking features. Whooping-cough in 1897 and 1898 caused 8 deaths. In 1899 the mortality sprang up again to a total of 123 deaths, against 90 in 1900, 9 in 1901, and 83 in 1902. In 1903 the mortality was heavy, the number of deaths being 204, but in 1904 only 35 deaths are recorded from this complaint, while in 1905 the number was further reduced to 3 deaths. Last year there were 26 deaths from this cause. The deaths from influenza numbered 132 in 1906, as against 70 in the previous year. The figures for the eight previous years ranged from 56 to 219, the last being for the years 1898 and 1901. From diarrhoeal complaints the deaths in 1906 were 97, against 128 in 1905; while in 1896 the mortality reached the height of 334 deaths, and in 1889 was even higher (355), with a much smaller population than in 1906. Enteric or typhoid fever was slightly more fatal in 1906 than in 1905, the figures being 48 deaths against 45. The highest mortality during the decennium was in 1898, when the deaths numbered 120 for the colony.

Bubonic Plague.—In the year 1900 there was one death from plague in New Zealand, which occurred in Auckland. None happened in the year 1901, but three deaths from this cause, all males, were registered in Auckland during 1902. No deaths from plague were recorded in 1903, but one death occurred in 1904. Last year no deaths were ascribed to this cause. The Public Health Department is taking every possible precaution. In no instance has the disease spread beyond the single case.

Vaccination.—The number of successful vaccinations of children registered in 1906 was 3602, against 3818 in 1905. The fall prior to 1902 was consequent on the alteration of the law relative to vaccination in England, and subsequently in this colony, while the increase shown for the three years 1902-4 was no doubt due to a slight visitation of smallpox from abroad, which caused one death in 1903. Seven children out of every 100 born in 1906 are shown to have been successfully vaccinated in that year. This is a falling-back to a position even lower than that which obtained in 1901 as regards vaccination of infants. 13,846 exemption certificates were issued from October 13th, 1900, when the Act came into force, to the end of the year 1906. Of these 2667 belong to the year 1906, when, as before stated, the successful vaccination of children under one year of age amounted to 1810, or 7.47 per cent. of births.

Parasitic Diseases.—There were 15 deaths from parasitic diseases, the proportion per 10,000 living being 0.17. Deaths from hydatids numbered 14 in 1906.

Dietetic Diseases.—Under the class "Dietetic diseases" are included 47 deaths from intemperance. But these cannot be said to represent the full extent of the mortality really caused by the abuse of alcoholic liquors. Many deaths of intemperate persons are attributed to diseases of the liver, kidneys, etc., in the medical certificates.

Tuberculosis.—At the census of 1906 the New Zealand born were shown to be 68 per cent. of the population, which would give the approximate average number of the same in 1906 as 611,300. The death-rate from phthisis amongst these persons was 5.51 per 10,000 living. The death-rate from phthisis in the United Kingdom is stated by the Registrar-General to be at the rate of 11.40 per 10,000 living for the year 1905. In Australasia the rate is materially increased by the deaths of persons who have come from other countries either already suffering from phthisis or predisposed thereto. There is no

reason for believing that this circumstance has more effect on the death-rate in Australia than in New Zealand. From other forms of tuberculosis the deaths in 1906 were 164 or 1.83 per 10,000 of population. Thus, a large addition has to be made to the deaths from phthisis to appreciate the full mischief done by tubercular disease. The mortality from all forms of tubercular disease, taken together, has been at the average rate of about 10 persons per 10,000 living for the last ten years. This rate is far lower than that which obtained in England during the year 1905, when the proportion was 16.32 per 10,000 living.

Cancer.—The deaths from cancer during the year 1906 were 623. There were more deaths of males than of females, the numbers being—males 337, females 286. The rate of mortality per 10,000 living was 6.96. The apparent increase in deaths from this disease is shown further on, and compared with that of England. It is certain, however, that out of a total of 8339 deaths from all causes in New Zealand during 1906, 623, or 7.47 per cent., were caused by cancer. The death-rate from cancer is not so great as that from tubercular diseases, but is nevertheless a most alarming matter, not only on account of the number of deaths, but because of its progressive increase. The deaths from cancer per 10,000 persons living rose from 5.47 in 1897 to 7.10 in 1903, 6.76 in 1904, 6.51 in 1905, and 6.96 in 1906; and that whereas 5.99 out of every 100 deaths were attributable to cancer ten years ago, the proportion had grown to 7.47 last year. The mortality was higher among the males than among the females (with the exception of 1890 and 1901), which is the reverse of English experience, where the rate was 7.56 per 10,000 of males and 10.05 of females for the year 1905.

Developmental Diseases.—The total of deaths from developmental diseases was 976, or 10.90 per 10,000 persons living. The mortality from premature birth comprised 337 deaths, and that from atelectasis, cyanosis, and other congenital defects 51 deaths. The proportion of deaths from premature birth varies from 11 to 15 out of every 1000 births, and that from congenital defects from 2 to 4 per 1000 births.

Old Age.—Deaths from old age in 1906 numbered 588, against 578 in 1905.

Local Diseases.—Deaths by diseases of the nervous system were 863, or 10.35 out of every 100 deaths from all causes, and 9.64 out of every 10,000 persons living. Of the 863 deaths, 272 were due to apoplexy, 108 to convulsions, and 138 to inflammation of the brain and its membranes. Paralysis, including hemiplegia and paralysis of the insane, caused 176 deaths, and locomotor ataxia 8 deaths. Paraplegia, with diseases of the spinal cord, caused 21 deaths. Deaths from nervous diseases (excluding convulsions of children) numbered 755, or 8.43 per 10,000 persons living. Diseases of the circulatory system resulted in 1130 deaths, being 13.55 out of every 1000 from all causes, and 12.62 per 10,000 persons living. Of the total number in this order, endocarditis and valvular disease of the heart contributed 732 deaths. From angina pectoris there were 32 deaths, from syncope 181, from aneurism 34, and from other forms of heart disease (hypertrophy, fatty degeneration, and pericarditis) 71. Diseases of the respiratory system show 976 deaths, of which 798 were attributable to bronchitis and pneumonia. Taken together, these two complaints were the cause of more deaths than was phthisis; and adding 61 from pleurisy, 10 from croup, 9 from laryngitis, and 98 from other respiratory diseases, the mortality in the order is found to be 11.71 per cent. of the total deaths, and 10.90 per 10,000 of the population. Deaths from diseases of the

digestive system also formed a large proportion of the whole (9.37 per cent.), the number being 781. Enteritis was most fatal, showing 226 deaths, liver-disease (113), gastritis (109) coming next, while 69 deaths were due to appendicitis. Of 382 deaths from diseases of the urinary system in 1906, the deaths from Bright's disease of the kidneys (albuminuria) numbered 196.

Violent Deaths.—Deaths by violence form a large item in the total mortality. In 1906 the proportion per 10,000 of persons living was 7.35, the total number of deaths having been 658. Of 535 who died violent deaths, 71 were suicides. The deaths of females by violence were far fewer than those of males, amounting to 123, and out of these only 12 committed suicide. A table given previously states the full list of deaths from external or violent causes for the year 1906. Accidental deaths numbered 560—males 456, and females 108. Of the total male deaths, 185 resulted from fractures or contusions, and 162 from drowning. Of the female deaths, 23 were due to drowning.

Pathological Report.—The work of the Pathological Laboratory shows a steady increase, the total number of examinations being 1287, as against 1006 last year, and 776 the year before that. The specimens examined at the Health Laboratory have increased 50 per cent. Some 750 tubes of media were sent to the Sydney Street Laboratory.

Examination of Water Samples.—In all 42 samples of water were bacteriologically investigated. A special visit was made to Hamilton to investigate the outbreaks of typhoid there, and many samples of water from various parts of the river above the intake of the borough supply were examined. Taking them generally, the public supplies in the colony are mostly of good quality from the bacteriological standpoint.

Vaccine Laboratory.—Thirteen calves were vaccinated and about 2000 c.c. of glycerinated lymph prepared. Of this amount 8420 tubes were issued to Public Vaccinators and medical men throughout the colony and 150 to the French Government at Tahiti. The recipients of lymph are somewhat lax in reporting their results, although a special report form is issued with each parcel of lymph. Thus, of the 8420 tubes issued we only received reports on 2742. These returns show the proportion of successful vaccinations to have been 91.2 per cent., the insertion success being 84.9 per cent. This can only be classed as "fairly satisfactory," the results obtained by the English Local Government Board Laboratory being about 98 per cent. of case successes; but there the lymph is withdrawn after two months. I have been withholding the lymph from use till it is absolutely free from all extraneous organisms, and, as from various causes, largely climatic, this involves keeping it in a cool store for sometimes as long as eight or nine weeks, a certain falling-off in the effective value results. Other causes of failure are at work which are more difficult to check, due largely to the treatment the lymph receives after it leaves our hands. It is impossible otherwise to account for failures by careful and competent vaccinators with a lymph which in other hands gives perhaps 100 per cent. of success. It is probable that a lymph kept after glycerination for over two months becomes very sensitive to such influences as sunlight and heat, and very readily loses its potency. It is satisfactory to note that no cases have been reported where the reaction was unduly severe.

Eight h.p. Motor Car for Sale. Four-seated, single cylinder, cape hood, spare tyres, lamps, etc. Recently overhauled and in thorough good order. Dr. Shepherd, 40 Bayswater road, Sydney. Tel. 582 William-street.

Medico-Ethical and Medico-Legal.

Surgeon and Chiropodist.—According to a report in the Melbourne *Argus*, Judge Johnston recently delivered, in the County Court, his reserved judgment in the case of Muir v. Hughes. The plaintiff was Richard Muir, bootmaker and chiropodist, and the defendant Dr. W. Kent Hughes, of Collins-street. The alleged libel was contained in a letter which Dr. Hughes wrote to Mr. Crocker Smith, who was interesting himself in the treatment of a club-footed boy named Pepper. Dr. Hughes was asked to contribute to a public fund being raised to treat the boy, and he replied, saying, "The money, I understand, is being given to an impostor, who poses as a foot specialist. I think you have let your philanthropic motives run away with your reason." At this time Dr. Hughes did not know Muir was the chiropodist who had been selected to treat the boy. Judge Johnston, in the course of a lengthy judgment, outlined the different cases of club-foot, and proceeded:—The plaintiff describes himself as a foot specialist and surgical bootmaker. He relinquished his trade of making ordinary boots some years ago, and has, since 1895, advertised himself as a foot specialist. He seems to have acquired a certain amount of celebrity, and received at times large sums of money from sufferers or persons subscribing for them. According to the evidence of witnesses called in the case he promised a cure. Although he qualified this in the box by saying that all he promised was "to put the patients on the soles of their feet," I feel compelled to believe that the inducement for their paying such substantial sums of money was correctly stated by them. As long as he stuck to his last, and confined his surgical work to making boots under the supervision of the medical profession, he appears to have obtained and deserved their good-will; but serious trouble arose between himself and the defendant. This happened nearly two years ago. Mr. G. C. Smith, a philanthropist in St. Kilda, took an interest in the boy Pepper, and endeavoured to raise by public subscription a sum sufficient for the boy's treatment, and communicated with Dr. Kent Hughes, informing him that he was willing to collect £30 if the doctor would undertake the case. The defendant replied, offering to treat the boy at the hospital, but declining to receive fees collected by public subscription. The boy was admitted to the hospital, but, unfortunately, maternal solicitude induced his mother to remove him. It was about the same time that Muir was selected, and Dr. Hughes was asked for the subscription. "It is not my duty," Judge Johnston said, to try a matter of taste and to impale the defendant for the language in which he choose to vent his feelings, provided that the facts justified his criticism. According to the view which I take of the facts, it is unnecessary for me to decide whether the privilege which I decide existed here was destroyed by malice on the part of the defendant. The condition of the defendant's mind is irrelevant to the issue which I am to try. The defendant has undertaken to prove that the libel complained of is true in substance and in fact. He alleges that the plaintiff's mode of treatment is unscientific, improper, and ineffectual, and is, in fact, harmful. All this he alleges the plaintiff knew, or ought to have known. He says that the plaintiff advertises cures of patients which are not cures, and he relies on four of such cases to support these propositions. In Gracie May's case the treatment was not only useless, but painful, and temporarily

injurious to the muscles. On the night before the day appointed for her to try the boot made by plaintiff she actually slept in it at his request. I have no doubt on this and other occasions she endured great and unnecessary pain. On the appointed day she attended at a photographic studio, and was placed in position by the plaintiff. The result, with its tense expression on the face and hands, is before me now—a very different picture from her appearance in the witness-box. The plaintiff's treatment was a failure, and she consulted the defendant. She now describes herself as able to move with perfect freedom, and quite comfortable on her feet. Charles Williams was treated by the defendant at the hospital, and an improvement in the condition of the leg took place. He was taken to the plaintiff, who placed photographs of him in the shop window, representing him with and without irons on his legs, and attached a significant notice, stating (in part), "Had he had my treatment at first, and not been operated on, he would never have been a cripple." The defendant swore that he was unable to produce Williams. Plaintiff swore that he is still making boots for him, and produced a testimonial highly praising his treatment of the boy. In the case of Bessie McDonald, plaintiff ought to have known the difficulties. She swore that the boots made for her were useless, except for appearance, and hurt her feet. Her treatment, in my opinion, is quite useless. "The last case," Judge Johnston continued, is that of the boy Pepper. He was produced for my inspection, and the evidence has driven me to the conclusion that he requires an operation similar to Gracie May's. The plaintiff is mistreating the child. His foot is becoming apparently straight, but this is effected by mechanical means at the expense of the knee joint, which is being turned outwards. As far as a layman can form an opinion, he will, under the present treatment, grow up a cripple. The result is being achieved at an expense of £30, the money of charitable people. The evidence leads me to suppose that for £3 he might have been turned out of the hospital cured. I have to decide whether on these facts defendant's letter was a libel on the plaintiff. Mr. McArthur, for the defendant, has pressed strongly for a finding that the plaintiff is an impostor, in the sense that he is a dishonest man. He either knew, or ought to have known, the consequences of his acts. He had sailed perilously close to the wind. I believe he was conscious of the fact that he had limitations, for there was evidence to corroborate his statement that when he really believed an operation was necessary he suggested that a surgeon should be called in. But I am not satisfied that he was guilty of intentional fraud. Blinded by vanity and biassed in favour of his own methods, he deceived himself, with the result that he imposed on the public. I think, therefore, that the use of the word "impostor" was justifiable. The word is simply the Latin form of those homely words "put upon." I think that suffering members of the public are very much "put upon," if methods of this kind are to be permitted, and I believe that in this sense the defendant, or any other member of the public renders a duty to his fellow-members by publishing language which has the effect of characterising such methods, even in harsh terms, as an "imposture." There will be judgment for the defendant, with costs to be taxed.

Medical Practitioners and Medical Officers of Health.—At the April meeting of the Shepparton local council (says the Melbourne *Age*), the health officer in his report said he had examined a person reported to be suffering from enteric fever, and found

the patient was not affected with the complaint. The following letter from the Board of Health on the subject was read at subsequent meeting of the council:—Dr. E. J. Howley, of Shepparton, has written to the board, under date 27th ult., complaining of the action of the local officer of health, Dr. McKenna, in visiting on two occasions without the knowledge or consent of Dr. Howley, and making a clinical examination of a patient of the latter, notified as a case of typhoid fever. Dr. Howley states that Dr. McKenna informed the parents that the case was not, and never had been, one of enteric fever, and explained that his (Dr. Howley's) diagnosis was questioned on wholly insufficient grounds; and I am to state for the information of the council, that it is customary for an officer of health (who is also a private practitioner) to inform any practitioner who had reported a case of typhoid that it is his intention to examine the patient. In the event of any difference of opinion, it is suggested that a specimen of the blood of the patient be obtained and forwarded to the university for examination. In the present case the medical attendant should take the specimen of the blood in the presence of the officer of health. It is understood that the officer of health does not desire to meet Dr. Howley in consultation, for certain reasons of medical etiquette. It must be pointed out, however, that medical etiquette must be subordinated to public duties.—(Signed) J. W. Colville, secretary.

Some Literary Notes.

Messrs. A. & C. Black have recently published "Letters of Dr. John Brown, with Letters from Ruskin, Thackeray and others," and we are indebted to an article in *Chambers' Journal* for the following notes from this work:—John Brown, so well known as the author of "Rab and His Friends," was the eldest son of the Rev. Dr. Brown, who was for 16 years minister at Biggar, in Lanarkshire, and 36 years in Edinburgh, and for 24 years one of the Professors of Theology in the Presbyterian Church. At 12 years of age he left Biggar, and was sent to the Edinburgh High School, and afterwards to the University, and on deciding to enter the medical profession he was apprenticed to Professor Syme. It was while he was acting as Syme's assistant, December, 1830, in the old "Minto House Hospital," which stood in what is now Chambers-street, that he got the material for the tale "Rab and His Friends." In 1831 he went as assistant to a doctor in Chatham, and while there there was a severe epidemic of cholera, during which he showed real heroism in fighting the disease. It is stated that Dickens at a dinner-party in Edinburgh told how a young Scotch doctor during the Chatham cholera epidemic had remained with a poor stricken woman, whom all had deserted, and then, overcome with fatigue, had fallen asleep, and was still asleep when in the morning the house was entered. One of the party said, "That was Dr. John Brown." He returned to Edinburgh in 1833, and began to practice, and it was from 23 Rutland-street, where he died in 1882 in his 73rd year, that most of these letters were dated.

John Brown was first induced to write for the press by the celebrated geologist, Hugh Miller, who sent him £20 and asked him to write notices of the pictures in the Academic Exhibition; he was also encouraged to write for the *North British Review* by his friend Dr. Hanna, who was then editor of that journal. His practice increased, and in 1847 he was made a Fellow of the Royal College of Physicians, Edinburgh, and for some time acted as its librarian.

His acquaintances included all who were in any way distinguished in Edinburgh society. Professor Masson describes Dr. Brown in 1846, when in his 36th year, "as a dark-haired stoutish man, of much shorter stature than his father, with fine, soft eyes, spirited movement, and very benignant manner." The publication in 1858 of the first series of "Horse Subseivæ" made John Brown famous, as it contained the celebrated story "Rab and His Friends." Two more series followed, and contained the "Letter to John Cairns, D.D.," "Pot Marjorie," "Queen Mary's Child Garden," and "Jeems the Doorkeeper." He had an unusual apprehension of all that was good and admirable in life and character. His love for the lower animals was well known. "Rab and His Friends" and "Our Dogs" have been read, says Professor Masson, by perhaps three millions of the English population of the earth; the very children of our Board schools know the story of "Rab and His Friends." Who could have told the story like Dr. John Brown? Little wonder that it had taken rank as his masterpiece and that he was so commonly spoken of while he was alive as the author of "Rab and His Friends." It was by that story, and by those other papers that might be associated with it as also masterly in their different varieties, as all equally "done to the quick," that his name would live. Yes, many long years hence, when you and I and all of us are gone I can imagine that a little volume will be in circulation containing "Rab and His Friends" and "Our Dogs."

The origin of "Rab and His Friends" was as follows:—Dr. Brown had been invited by his uncle, the Rev. Dr. Smith, of Biggar, to lecture there. He had never lectured before, and was puzzled as to what to give. The old incident of the carrier and his wife often came to his mind; he tried to set it down—in vain, at first. At last, after returning from a happy dinner, he sat down on a midsummer night at twelve and arose at 4 a.m. and "slunk off to bed, satisfied and cold. I don't think I made almost any changes in it. I read it to the Biggar folk in the schoolhouse, very frightened, and felt I was reading it ill." When it was published the Biggar folk liked it better, and it did a great deal for his growing reputation. The real name of the carrier was not James Noble, but James Jackson, and his wife was not Ailie Graeme, but Tod; and there are other purely imaginative touches.

John Ruskin calls Dr. Brown "the best and truest friend of all my life; best for me because he knew always how to help us both, and never made a mistake in doing so." His advice to Ruskin was, "Don't over-cerebrate." He was to take porridge and cream, and sleep eight hours out of the 24. This corresponds to what Brown wrote to his father: "It is quite certain that by concentrating in your brain the nervous energy for the purpose of thinking out a vast, complicated and severe subject, and then committing it in the fewest and strongest words to the smallest piece of paper, you by necessity withdraw nervous energy from the rest of the body; you render your digestion imperfect and your liver torpid, and all this reacts on the brain, and you have giddiness and disturbance of vision. Try by all means to diffuse this nervous energy by being out of doors, by being idle, by talking, by being talked to, by sleeping." And not long before his own death he wrote to Miss Molyneux: "Now, take care of yourself, and try to pass eight hours of the 24 in deep sleep, and don't read, and, above all, don't feel too much, till you are as strong as a horse."

The *Lone Hand* for June, 1908, contains an admirable article on Food Adulteration, summarised from foreign

official literature on the subject, recourse to this source being necessary as there appears to be no work published in the English language giving a complete outline of the laws in operation in other countries to suppress the evil. Particulars in this respect have therefore been compiled relating to the following countries: Germany, Switzerland, France, Russia, Roumania, Austria, Belgium, Portugal, Italy, and Turkey. Summing up the leading features of European legislation and administration, the following points are worthy of special mention:—

1. Federal control is preferable to State control.
2. Administration by the municipalities is only effective when the central authority has power to step in and do the work when it is neglected.
3. Adulteration is best kept in check when the work of supervision is entrusted to practical food-chemists.
4. The punishment must fit the crime—heavy penalties and imprisonment in serious cases.
5. For inspectorial work, the services of the police, supplemented by specially-trained food inspectors, are requisitioned.
6. Analytical work is done in Government laboratories, in many cases no fees being charged to the public for the examination of articles of food.

The English-speaking peoples have been the last of civilised nations to realise the importance of legislative action to safeguard a pure-food supply. This indifference may be attributed to the typical reverence of the Britisher for the "rights of property." Even at present it is extremely difficult to secure the passage of a pure food bill through a British-speaking Parliament.

Further on the article deals with the all but futile efforts put forth in Great Britain to combat the evil.

Later, the more genuine attempts made in Canada and the United States in the same direction are recorded.

The thanks of the community should be accorded the *Lone Hand* for the disinterested and courageous attitude it has taken up and persisted in. The fight is against great odds, and, as pointed out, the "rights of property" represent huge profits; and John Bull loves dividends and appears to love those who extract them under whatever circumstances from that portion of the public least able to protect itself.

OBITUARY.

We regret to record the death of Dr. Frederick Ashwell, M.B., C.M. (Edin.) 1882, which occurred at his private estate, Mount Tootie, on the Kurrajong, New South Wales, on May 18th. The deceased practised for some years at the Glebe, first in partnership with Dr. Munro, and then on his own account. He was also at Carcoar for a time. He married a daughter of the late Mr. John Lamrock, of Kurrajong, and leaves a widow and several children. When he found his health failing a few years ago he retired from practice, and went to reside at Mount Tootie. The interment took place on the estate on May 19th.

We regret to record the death of Dr. Mark Winderay Traill, M.R.C.S., L.R.C.P. (1876), which took place suddenly on June 3rd at his residence, Belmore-street, Burwood, at the age of 55. He appeared to be in his usually robust state of health on Tuesday, and his death was quite unexpected. The deceased surgeon was the second son of the late Dr. Traill, of Collaroy, Merriwa, and was born at Raymond Terrace, N.S.W. His medical and surgical education was gained in Edin-

burgh and London, and he was for some time one of the house surgeons at University College Hospital, London. Returning to this State, Dr. Traill engaged in private practice in Macquarie-street, and achieved considerable reputation as a surgeon. He had resided for nearly 25 years in Burwood, but had a practice extending far beyond that suburb. He was a member of the Union Club, Sydney, honorary surgeon to the Australian Jockey Club, and one of the founders of the Western Suburbs Cottage Hospital, in which institution he took great interest. He was also for some years a member of the committee of the A.J.C. At Burwood he was held in high regard as a citizen and a surgeon. His benevolence was unostentatious but thorough, and he had won for himself a wide circle of friends. He leaves a widow, seven sons, and one daughter. The funeral took place next day at Enfield, and was very largely attended.

We regret to record the sudden death of Dr. Thomas George Davy, a well-known medical practitioner of Perth, W.A., from angina pectoris, at his residence on June 1st. The deceased gentleman was 52 years of age, having been born in Jamaica in 1856. He received his early education at the Uppingham Public School, and was afterwards a student at Exeter College, Oxford. In addition to being a M.A. of Oxford, he held the diploma of M.R.C.S. (Lond.), 1883, and L.S.A., 1894. He was an M.D. and Ch.B. of Oxford. After leaving Oxford he travelled extensively, and held medical appointments under the British Government in China and India. Subsequently he settled in Auckland, New Zealand, where he established a large practice. He then returned to England, but finding the climate too severe he came to Western Australia in 1895, first practising at Coolgardie. About seven years ago the disease which caused his death manifested itself, and he then took a trip to Tasmania with a view to recruiting his health. On his return he practised his profession at Fremantle, and on removing to Perth about five years ago he was appointed Government District Medical Officer, and also medical officer to the Old Men's and Old Women's Homes and to the Police Department. In addition to his other attainments, Dr. Davy was no mean musician, and was a brilliant linguist, having a knowledge of Spanish, Russian, Italian, French, German, Hebrew, and ancient Greek and Latin, and was also able to converse and write in Chinese. For many years past he contributed articles on scientific subjects to various English journals, and also devoted much attention to the study of ethnology and anthropology, and of higher mathematics, in which branch of learning he was especially proficient. He was a Freemason of long standing, and during the last 12 months rendered great service to the Children's Protection Society. Despite the intense pain which his complaint occasioned him, Dr. Davy to those who knew him intimately was a bright and delightful companion, and he will be very greatly missed by a large circle of friends. Dr. Davy leaves a wife and two sons and two daughters. The funeral took place at Karrakatta Cemetery.

Charitable Donations and Bequests.—At the last monthly meeting of the board of management of the Royal Alexandra Hospital for Children, Sydney, the president, Dr. Clubbe, announced the receipt of a contribution from Mr. George Ernest Faithfull, of Inverloch, Goulburn, of the sum of £1000, for the purpose of endowing a cot in the hospital in perpetuity.

HOSPITAL INTELLIGENCE.

Lewisham Hospital, N.S.W.—At the annual meeting of the Lewisham Hospital, held on May 20th, the annual report acknowledged the kindness shown to the institution by various well-wishers, and especially thanked Dr. Donovan, K.C., for a donation of £50 toward the liquidation of the overdraft, and the Hospital Saturday Fund for its contribution of £230. The surgical statistics showed that 517 gynaecological had been admitted during the year. Of these, 469 had been discharged cured, and 34 relieved, while 14 had died. The gynaecological operations numbered 477. There were 14 deaths under this heading. Other operations on women and children had been carried out, the totals being 852 treated and 826 restored to health, while 26 died. In the outdoor department the total number of patients dealt with during the year was 8607. Operations under anæsthetics under this heading totalled 2753, and there were 2238 minor operations, and 2178 accidents attended to. The balance-sheet showed an overdraft of £3000, a reduction on the previous year.

Brisbane Hospital.—At the monthly meeting of the Brisbane General Hospital Committee, held last month, the medical report, covering the two weeks ended on Saturday, May 23, showed that the in-patients admitted numbered 136. During the same period there were discharged: Cured or convalescent, 36; relieved or improved, 102; in *statu quo*, 6. The deaths during the same period numbered 10. Remaining under treatment, 223. The out-patients' attendances hospital totalled 941, and at the South Brisbane Branch Dispensary 92. At the Convalescent Home at Sandgate, 23 were admitted and 28 discharged, leaving 14. The maintenance account, A.J.S. Bank, showed that the balance at the last meeting was £57 0s 1d on the debit side; receipts since, £165 16s 3d; expenditure, nil; credit balance at date, £108 15s 2d. A letter was received from the Under-Secretary, Home Department, in reply to a communication sent by the committee, relative to the necessity for establishing an institution for inebriates. The reply was to the effect that the Government fully recognised the need of an establishment of that kind. The matter was under consideration, and it was hoped that at an early date such an institution would be established.

Consumptives' Sanatorium, Tasmania.—At the monthly meeting of the executive committee of the Tasmanian Consumptives' Sanatorium, held last month, the visiting committee reported having paid the usual visits of inspection, and found all in order. The drainage of the "Roberts Memorial" building has been completed, and the glass shelter-house removed to a more suitable site. Dr. Webster stated that the result of the treatment in the cases of two patients just discharged had been most satisfactory, they having been both cured. The matron's monthly report was read, showing there were five patients in residence, three of whom were steadily improving and gaining in weight; the other two were recent arrivals, and in the initial stage of treatment. Accounts to the amount of £20 12s 7d were passed for payment. The necessary form of admission was handed in for the reception of another patient.

Perth Hospital, W.A.—The accommodation at this institution is said to be quite inadequate (says *Finding's Journal*), and steps are now being taken by the Government to remedy the defect in one or two

important particulars. Lately there has been quite a rush of diphtheritic patients to the hospital, and so pushed has been the management for room that in one instance it became necessary to place two patients in one bed. The condition of things in the infectious diseases wards of the hospital is largely due to the dispute between the Government and the various boards of health throughout the State over the responsibility for the maintenance in the hospital of patients suffering from infectious diseases. However, the Government has now resolved upon a step which will make Perth Hospital available for the many urgent cases, other than those of infectious diseases, which it is expected to treat. In short, the Government has taken over from the local board of health the control of the Victoria Hospital at Subiaco, a structure that was erected many years ago when an outbreak of smallpox necessitated the isolation of a number of patients. This building will now be made available for persons suffering from infectious diseases. Another drawback in connection with the Public Hospital has been the absence of proper quarters for the nurses, who have been driven to lodge in the city in order that room could be found at the institution for patients. Now the Government promises to put in hand at an early date the building of nurses' quarters on a comprehensive scale.

Gympie Hospital, Queensland.—From the *Brisbane Courier* we learn that a deputation of members of the Queensland Branch of the British Medical Association waited upon the Home Secretary on June 5th to ask that certain resolutions passed recently by the subscribers to the Gympie Hospital, which they alleged would have the effect of converting the Hospital into a medical benefit society, should be greatly modified. Those present included Drs. Gibson, L'Estrange, Thomson, Turner, Hardie, J. Cameron, F. Bourne, McLean, Page, A. Jacks, Jackson, Orr, Espie Dods, and Brockway. Dr. Gibson stated that the new rules complained of provided that any person might become a district subscriber to the Gympie Hospital by giving not less than 1s per week in advance, and should be entitled to medical and surgical treatment, and (if married) for his wife and children. Employees of mining companies were required to pay 2s per month, and for operations performed in the Hospital reasonable fees were to be charged. He submitted that such provisions would be unjust to the poorer patients, for whom the hospital was intended, and unjust to subscribers who donated, not for the sake of the rich but the poor, and unjust to medical benefit societies. Other speakers said there would be a difficulty experienced in getting medical men to attend charitable institutions if such rules as those complained of were passed. Mr. Hawthorn said the rules in question had not come under his official notice yet, but he desired to point out that hospitals in mining districts like Gympie were differently situated to those in a city like Brisbane. A system similar to that being introduced into Gympie was in force in other mining fields, and was working well. In other mining fields where it was not at work hospitals had had to close. In one case where a hospital had not made provision for the treatment of pauper patients the department had refused to pass the rules. When the rules of the Gympie Hospital were placed before him he would give due weight to the representations of the deputation.

A special grant has been made by the University of Melbourne to Dr. Basil Kilvington to enable him to continue his researches into the regeneration of nerve fibres.

BATTLE OF THE CLUBS.

South Australia.

At a meeting of the Star of the North Lodge, U.A.O.D., at Petersburg (S.A.) last month a letter was read from Dr. Goode, who has taken over Dr. J. R. Stevenson's practice in Petersburg, stating terms on which he was prepared to do the lodge work. The principal objection Dr. Goode had to the present agreement was the married members' clause, and he informed the lodge and also the other friendly societies in the town that he would not receive any more families on his list. Considering that married members form a large percentage of the Druids here, this would mean a considerable set-back to the order if it were denied the benefits of the surgeon, and several members spoke strongly against such an agreement being made. It was decided that a sub-committee, consisting of the A.D. (Brother M. Bush), the secretary (Brother Jones), the treasurer (P.A. Brother J. Stevens), and the chairman of the trustees (Brother G. W. Halcombe), in conjunction with delegates from the other lodges, wait on Dr. Goode and try to come to an amicable arrangement. Speaking on the matter, the treasurer said the position of lodge doctor in Petersburg was not such a losing one, as the Druids alone paid over £240 annually to their surgeons, and the other lodges £160. Other objections lodged by the doctor were the taking over of accouchement cases after other doctors had left them as lodge work, and the treatment of the ear, eyes, nose and throat, seeing that the order had a specialist for these cases in Adelaide. He also objected to supply antitoxin and other costly drugs.

Inhaling Apparatus.

In a previous article we described the method of treatment at Bad Reichenhall, and especially the pneumatic chambers. The arrangements for inhalation there have contributed to further establish and extend the already world-wide reputation of this watering place. Two methods of inhalation are in use there, viz., inhalation in separate individual cabins, and inhalation in common, which is applied by means of the same apparatus, the improved Clar inhalator, which excludes the use of the mouth and nose pieces for inhaling the atomised medicines, and in addition the latest warm inhaling apparatus "Ideal" for the appliance of atomised medicines by means of mouth and nose pieces.

The improved Clar apparatus is suspended from the ceiling, and consists of a glass vessel to receive the liquid to be atomised and generally three atomising nozzles with suction pipes. In front of the atomising nozzles are glass receptacles to collect portions of the medicines not sufficiently atomised, which then flow back into the glass vessel.

In the warm inhaling apparatus "Ideal" the medicine is placed in a glass receptacle which hangs in a water bath. On this receptacle stands a glass hood with the atomising tube of glass. The hood has a supply pipe to which the mouth or nose piece for inhaling the medicine is fixed. The water bath is in a double kettle, between the walls of which steam or hot water circulates to warm the water bath and also the compressed air for the purpose of atomising, which is conducted to the atomising nozzle through a coil between the double walls. There is also an arrangement by which the medicine, which is warmed to blood heat or higher, can be cooled towards the end of the

inhalation. The temperature of the atomised medicines is indicated on a thermometer placed in the glass hood. The medicines are very finely atomised, and very little power is required by the apparatus.

The compressed air necessary to atomise is supplied by an air compressor which draws the air through a filtering apparatus to free it from dust. In the pressure conduit there is a large air-box with a pressure gauge and safety valve, and to it are attached as many pressure conductors as there are atomisers. By maintaining the prescribed air pressure and the proper arrangement of the nozzles the medicines are more finely atomised than is possible with any other apparatus. Very little power is required in comparison with other apparatus. The ventilation of the rooms is excellent in consequence of the large quantity of air supplied to the atomisers, and cannot be excelled by any other system. The air is changed from six to ten times every hour. Each cabin is provided with venetian blinds, through which the superfluous air escapes. Each cabin is also supplied with a spitting receptacle with rotary running water, from which the expectoration of the patient is carried away through closed drainage. The advantages of this system are evident, and afford the physician the possibility of treating his patients individually—the one with a 2 per cent. brine, the second with a 4 per cent. solution, and a third with another remedy which is impossible by inhalation in a common room.

Notwithstanding these advantages, in many cases inhalation in a common room is still employed on account of the smaller cost. Four to eight atomisers, according to the size of the room, are hung from the ceiling, which fill the room with a thick mist of atomised medicine.

MEDICAL NOTES.

Sale of Poisons.—Members of the Pharmacy Board, N.S.W., interviewed the Chief Secretary recently respecting the Sale of Poisons Bill introduced into the Legislative Assembly some time ago, and taken to the committee stage. The deputation asked that the bill might be given an early place next session. It was pointed out that the bill aimed at the protection of the public against the indiscriminate sale of poison, and also provided for a more effective administration of the law. It was proposed that all distributors of poisons should be compelled to take out a license at an annual fee of 10s 6d, when the fund resulting would be used to secure better administration. Mr. Wood, in reply, said the difficulty in the past had been to secure a measure that would meet the reasonable requirements of the different interests, and not interfere with the requirements of the public. He promised early attention to this measure next session.

The question—What is a private hospital? was raised at the meeting of the Victorian board of public health recently in respect of an application for the registration of one room in a doctor's premises at Seymour as a private hospital. It was pointed out that the object of the regulations was to provide that the whole of the environments of the hospital were satisfactory, that the food supply was not liable to contamination, and for other purposes. The regulations were not confined in their application to the particular room occupied by patients. The following resolution was carried:—"The board cannot approve of the registration of a single room in a house as a private hospital."

PERSONAL ITEMS.

Dr. David Kerr, who has resided in Angaston, South Australia, about five years, has recently sold his practice and is removing to Port Pirie. A large number of leading residents of Angaston, Tanunda, Nuriootpa, Greenock, Stockwell, and Eden Valley assembled at a farewell smoke social in the institute hall, tendered to him on his departure.

Dr. Cowan has succeeded to the practice of Dr. David Kerr at Angaston, S.A.

Dr. C. J. Weekes has resigned his appointment as medical officer to the Mount Boppy mine at Canbelego, N.S.W., which he has held for the last two years, in consequence of ill-health, and removed from the district.

Dr. Norris, chairman of the Board of Health, Melbourne, has been made a justice of the peace.

Dr. Charles Ayres, who has been absent from Sydney for about 20 months on a tour abroad, has returned and resumed practice as a skin specialist at Macquarie-street.

Dr. W. B. Heyward, house surgeon at the Launceston General Hospital, Tasmania, has resigned, after eight years' connection with the institution.

Dr. Lester, of Mudgee, N.S.W., was banqueted on May 20th, and made the recipient of a valuable tea and coffee service by a number of friends.

Members of the Melbourne Medical Association, with their wives and friends to the number of about 200, were present at the reception by the president, Dr. J. H. Nattrass, at the Paris Café, on May 15th.

At a meeting presided over by Dr. W. G. Armstrong, at the Royal Society's House, Elizabeth-street, Sydney, on May 22nd, it was resolved, on the motion of Dr. Flashman, seconded by Dr. Tidswell, that steps be taken to celebrate the completion of Professor Anderson Stuart's 25 years' work in the founding and successful conduct of Sydney Medical School. Dr. Purser and Dr. Maitland were appointed hon. treasurers, and Dr. Flashman and Dr. Armstrong hon. secretaries, and it was decided to invite graduates in medicine of Sydney University specially to participate, but that the teaching staff, undergraduates and the general public be not excluded from the movement. A committee, consisting of Dr. Sandes, Dr. Dansey, Dr. McKay, Dr. Jessie Aspinall, Dr. Sawkins, and Mr. Barron, was appointed with the executive officers to take the necessary steps to collect subscriptions.

J. Loftus Cuppaidge, Major A.A.M.C., Gympie, Queensland, who recently passed his examination for lieutenant-colonel, has been awarded the Colonial Auxiliary Forces Officers Decoration.

Dr. M. O'Brien has resigned his position as Acting District Medical Officer and Public Vaccinator at Kookynie, W.A.

Dr. C. A. Stewart has resigned his position as health officer to the shire of Heytesbury, Victoria.

Dr. Alfred Austin London, of Adelaide, has been appointed Honorary Commissioner to represent the State of South Australia at the Franco-British Exhibition, held in London.

Dr. E. A. D'Ombra, late of Casterton, Victoria, has commenced practice as a specialist in diseases of the eye, ear, nose and throat, at 205 Macquarie-street, Sydney.

Suburban practice, good class, required, Sydney or Melbourne. For one suitable a good price given. Particulars treated in absolute confidence. No agents. "Senior," apply this office.

Copies of the April (1907) issue of the *Australasian Medical Gazette* are needed. Full price will be paid. Address this office.

Dr. George Hurst on June 5th was tendered a farewell banquet at Hogarth's Park Hotel, Bathurst, N.S.W. Dr. Hurst has begun practice at "Viwa," Burlington-road, Homebush, Sydney.

Dr. Morgan Martin has removed from College-street to Buckland-chambers, 183 Liverpool-street, Sydney.

Dr. Herbert Lee, formerly of Gunnedah, N.S.W., has succeeded to the practice of the late Dr. Traill at Burwood, Sydney.

Dr. T. H. Lovegrove, principal medical officer and president of the Central Board of Health at Perth, W.A., has decided to retire from the service after 41 years in office.

Dr. John Davies has resigned his position as medical officer to the Beaconsfield Hospital, Tasmania.

Dr. Tipping has resigned his position as resident medical officer of the Warrnambool Hospital, Victoria, and Dr. Rohan has been appointed as his successor.

The members of West Australian Branch of the British Medical Association at their May meeting presented to Dr. Cleland, hon. treasurer, a handsome silver tea and coffee service, suitably engraved, on the occasion of his marriage. The president, Dr. Seed, made the presentation, and was supported by remarks from Drs. Officer and Martin. Dr. Cleland thanked the members for their kind thought and for the present they had made to Mrs. Cleland and himself.

Dr. Hedley Terrey has removed from Lindfield, Sydney, to Queen and Oxford-streets, Paddington, Sydney.

Dr. P. J. Kerwin has resigned his appointments at Port Douglas, and intends practising in Cairns, North Queensland. He is succeeded at Port Douglas by Dr. P. S. Clarke.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Cahill, John Hampton, M.B., to be Government Medical Officer and Vaccinator at Canowindra.

Henry, Thomas James, L.F.P.S., L.R.C.P., F.R.C.S., to be Government Medical Officer and Vaccinator at Grafton, vice Dr. V. A. J. Smith, resigned.

Newton William, M.B., has been appointed Government Medical Officer for Katoomba, in place of Dr. Spark, resigned.

Wood, F. H., has been appointed Coroner at Urala.

Shepherd, Cyril, M.R.C.S., L.R.C.P., Lond., to be Hon. Assistant Ophthalmic Surgeon to the Sydney Hospital, vice Gordon MacLeod, M.B. M.S., promoted to Hon. Ophthalmic Surgeon.

Latham, Oliver, M.B., to be Junior Medical Officer in the Lunacy Department.

SOUTH AUSTRALIA.

The following gentlemen have been reappointed Members of the Boards of Advice for the school districts set opposite their names, viz. :-

Angove, William Thomas, M.R.C.S., Teatree Gully.

Kerr, David, M.B., Angaston.

Sangster, John J. Kerr, M.R.C.S., Burra.

VICTORIA.

The following persons to be Officers of Health for the districts set opposite their names, viz. :-

De Crespigny, Constantine Trent Champion, M.B., city of Fitzroy, during the absence of Francis William Watson Morton, L.R.C.P.

Fetherstonhaugh, Charles, M.B., shire of Mount Rouse (portion of the Chatsworth riding north of the Hamilton to Chatsworth road, and the parishes of Adzar and Dunkeld, in the Dunkeld riding), vice Constantine Trent Champion de Crespigny, M.B., resigned.

Keogh, Arthur George, M.B., shire of Berwick (northern portion), vice Samuel Bernard Helwig, M.D., resigned.

Manly, Richard Augustus Aloysius, M.B., shire of Wyndham, vice William Spalding Laurie, M.D., resigned.

The following persons to be Public Vaccinators for the districts set opposite :-

McLelland, William C., M.B., for Metropolitan District, during the absence of Sampson J. R. Greville, F.R.C.S., on leave.

Park, Alexander, M.B., for Northern District, vice R. J. Fullerton, L.R.C.P., retired.

Kelly, James Patrick, M.B., for Metropolitan District, during the absence of V. J. E. Zichy-Woinarski, M.B.

Kilvington, Dr., to be Acting Hon. Surgeon at the Melbourne Hospital, during the absence of Dr. Charles Ryan.

WESTERN AUSTRALIA.

Cortis, W. R., to be Officer of Health, Kookynie Local Board of Health.
Hill, C. H., to be Officer of Health, Mt. Morgan Local Board of Health.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

VICTORIA.

Gray, Francis Audubon, L.R.C.P. & S. (Edin.), 1902.
Holmes, Louis Saenger, L.R.C.P. & S. (Edin.), 1887.
Ingram, Bertram, L.R.C.P. & S. 1904, F.R.C.S. (Edin.), 1907.
Robinson, Edmund, M.D. (Edin.), 1893.
Ross, Donald Murray, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1903; M.B., B.S. (Durham), 1905.

TASMANIA.

Duke, Harold Denny, M.R.C.S. (Eng.), 1904; L.R.C.P. (Lond.), 1904.
Mitchell, Henry St. John, L.R.C.P. (Edin.), 1883; L.F.P.S. (Glasg.), 1883.
Wood, Francis Aldersley, M.B. (Melb.), 1904; Ch.B. (Melb.), 1904.

SOUTH AUSTRALIA.

Todd, Robert Stanley Enever, M.B., Ch.B. (Edin.), 1904.
Naylor, Henry George Horace, L.R.C.P., L.R.C.S. (Edin.), 1874.
Borthwick, Fernichirst Halidon, M.B., Ch.B. (Edin.), 1904; D.P.H. (Edin. and Glasg.), 1907.
Additional qualifications were added to:—
Birks, Melville, L.R.C.P., 1906, F.R.C.S. (Eng.), 1907.
Reissmann, Charles Henry, M.D. (Adel.), 1902.

QUEENSLAND.

Stirling, Lewis James Miles, L.L. Mid., 1901; R.C.P.I., L.L. Mid., 1901; F., 1904; R.C.S. (Irel.); D.P.H., R.C.P.S. (Irel.), 1904.
Looney, Frank Harold, M.B., B.S. (Melb.), 1907.

BIRTHS, MARRIAGES, AND DEATHS

BIRTHS.

DONALD (n.e. Bowman).—May 15th, at Nurse Welch's Private Hospital, Warracknabeal, Victoria, the wife of Dr. B. P. Donald—a son.
WEST.—May 12, 1908, at Macaria, Camden, N.S.W., the wife of F. W. West, M.B., Ch.M.—a daughter.

MARRIAGES.

CAMPBELL—HOWARD.—April 29th, at St. Columba's Church, Charters Towers, Queensland, Dr. John Campbell, F.R.C.S., Cloncurry, only son of the late Surgeon-Major John A. Campbell, Army Medical Staff, to Evelyn Agnes, eldest daughter of J. P. Howard, Esq., Boulia, Q.
GUNSON—MORPHETT.—May 30th, by the very Rev. R. W. Spence, J. B. Gunson, M.B., to Annie Elizabeth, eldest daughter of J. C. Morphett, Cummins, Glenelg, S.A.
TORRIGIANI—FIASCHI.—May 12, at Castello, Florence, Luigi, only son of Marquis Pietro Torrighiani, Senator of Italy, to Clarissa Luisa, eldest daughter of Dr. Thomas Fiaschi, of Sydney.
WILLIS—WILSON.—June 6, at Granville, N.S.W., by the father of the bride, Edith Lilian, daughter of Rev. Hugh Wilson, M.A., of Granville, to Charles St. Leger Willis, M.B., of Wee Waa, N.S.W.

DEATHS.

ASHWELL.—May 17, 1908, at his residence, Mount Tootie, Dr. Fred. Ashwell, formerly of Glebe Point, Sydney.
TRAILL.—June 3, 1908, at Coolabah, Belmore-street, Burwood, Sydney, Dr. Mark Windeyer Trill, aged 55 years.
WHITCOMB.—May 17, at her residence, "Lindon," 107 Princess-street, Kew, Victoria, Anna Louisa, relict of the late Dr. Whitcomb, of Fitzroy, Melbourne, in her 72nd year.

BOOKS RECEIVED.

Transactions of the Association of American Physicians, held at Washington D.C. Volume xxii.
Clinical Lectures on the Surgical Diseases of the Urinary Organs. By P. J. Freyer, M.D., M.Ch. Number of pages viii + 425, with 141 illustrations. Demy 8vo. Price, 12s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.
The Royal University of Ireland Examination Papers, 1907.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. R. Worrall, Sydney; Dr. Liddell, Melbourne; Dr. B. Poulton, Adelaide; Dr. R. D. Brummett, Menindie; Dr. B. A.

Brockway, Brisbane; Dr. H. S. Newland, Adelaide; Dr. O. Reissmann, Adelaide; E. Wrench, Esq., London; F. Hellige and Co., Freiburg; Mr. G. Arnold, Sydney; Dr. M. A. Schallit, Delegate, N.S.W.; Messrs. Brentano, Washington, D.C.; Dr. Crumpton, Perth, W.A.; the Librarian, Public Library, Sydney; Dr. G. L. Mullins, Sydney; Dr. A. Stewart, Dalby (Q.); Messrs. Potter & Birks, Sydney; Messrs. Muir & Neil, Sydney; Messrs. Donald Rose & Co., Sydney; Mr. F. W. Loxton; Dr. L. W. Harvey, Manly; Dr. A. E. Martin, Perth, W.A.; Hon. Treasurer South Australian Branch; Dr. J. L. Cuppage, Gympie (Q.); Dr. B. B. Ham, Brisbane; Dr. Bickis, Adelaide; Dr. E. S. Stokes, Sydney; Messrs. Baillière, Tindall & Cox, London; Dr. A. J. Vause, Sydney; Dr. T. Fiaschi, Sydney; Mr. L. Bruck, Sydney; Dr. W. G. Armstrong, Sydney; the Editor "Lone Hand," Sydney; Dr. Robertson, Auckland; Dr. E. A. D'Ombain, Sydney; Secretary Queensland Medical Board; Dr. Richard Jones, Sandringham, Victoria; Dr. Cyril Shepherd, Sydney; Dr. Guthrie Rankin, London; Dr. Salter, Queensland; Registrar, Royal College of Physicians, London.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. *The Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." *The Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

AUSTRALASIAN MEDICAL GAZETTE

No. 322.

SYDNEY, JULY 20TH, 1908.

VOL. XXVII., No. 7.

SCHOOL HYGIENE.

Presidential Address delivered at the 29th Annual Meeting of S.A. Branch D.M. Ass., June 25th, 1908.

By J. H. EVANS, M.B., B.S., Retiring President.

The subject that I have chosen for my address this afternoon is one of national importance, and I consider that no apology is needed for directing attention to this branch of public health.

There is a deplorable lack, among the general public, of practical knowledge of the elementary laws of life and health, and it is time that the State and those individuals controlling the education of the young took the matter intelligently in hand and taught their charges the necessary amount of domestic hygiene, beginning such instruction at the earliest possible age and in the simplest and most practical manner. Too much must not be expected at the start in the way of results, for the parents of the present school generation themselves have not had such instruction as is proposed, and may possibly not appreciate it at its full value. Some ignorant and careless people may even oppose such reformatory measures as I am about to advocate. However, the instruction of the child at school in hygienic principles must to a certain extent bear fruit in the home, and gradually improvement will become manifest.

To facilitate this process, in some cities there is a system of district visiting by charitably disposed ladies who make it their business to visit the homes of the poor, and endeavour, by teaching domestic hygiene, to improve unsatisfactory conditions. Through the effects of poverty and the neglect of the laws of nature, signs of deterioration of the race are becoming apparent in the large cities of the Empire. It is the duty of our various Governments to take the matter resolutely in hand and remove existing defects, in so far as is possible; and it is expected that proper education of children in domestic hygiene will be a valuable aid to such a step.

At the seventh session of the Intercolonial Medical Congress, held in Adelaide in 1905, the following resolutions from the section of public health received congressional sanction:

1. "That in view of the profound influence of school life and school training upon the physical future of the race, the hygienic construction and management of schools, the training of teachers in school hygiene, and the systematic practical instruction of school children in elementary, personal, domestic, and civic hygiene are subjects which demand the earnest attention of the Governments of the various States of the Commonwealth."

2. "That for each State Education Department there should be available a whole time medical officer, possessing special knowledge of applied hygiene in relation to schools, to whom should be referred all questions relating to the hygienic construction and management of State schools, to the protection of teachers and pupils from preventable disease, and to the methods and scope of hygienic instruction and training."

3. "That applied school hygiene should form a compulsory subject in the training of State teachers, and that a system of medical inspection of schools should be introduced at an early date, particularly in the larger centres of population."

Nearly three years have elapsed since these resolutions were passed, but as yet there is no school inspection in this State. A member of the medical profession was recently commissioned to examine and report upon the condition of a limited number of school children, but just as his preparations for starting were complete, some other scheme was proposed, and the work suspended. I am fully assured in my own mind that those gentlemen whose business it is to look after the education of children have done a great amount of good, and the value of their work would have been enhanced had they had for an adviser such a person as a whole time medical officer specially qualified for his duties.

The School Building.

Let us, first of all, consider the State school building of the present day. I am

afraid that the special uses to which these buildings were to be put did not, from a sanitary point of view, receive proper consideration when their construction was designed. They are lacking in many respects. The classrooms are too small for the number of pupils; they are insufficiently ventilated and improperly lighted. A growing child needs quite as much, if not more, air-space than a full-grown adult, otherwise its development is retarded. Personally, I am in favour of the pavilion plan of building, running north and south, with windows and doors on the eastern and western sides. The doors should be of sufficient size to allow of rapid emptying of the room in case of emergency. We have recently read of the fearful holocaust in America, where numbers of children were unable to escape from a school building on fire. I strongly hold the opinion that school buildings should be only one story high.

However, it is out of the question that the present buildings will be abolished, therefore they must be set in order, and I do not believe that any natural means of ventilation will keep the air sufficiently pure in still weather, hot or cold; therefore I advocate that artificial means be provided. With regard to lighting, if the windows are on one side only the desks should be so arranged that the light falls on the left side of the pupil; in no case should it be in front. Special attention should be directed to all lavatory and sanitary arrangements. Provision should also be made for heating the classrooms in cold weather.

The School Desk.

The desk is almost as important as the room itself, for at it must the child spend so much of its time. Dual desks, so much in vogue, are strongly to be condemned as tending to produce contorted attitudes and to spread infection. Dr. Kerr, the chief medical officer of the London Educational Board, recommends a continuous desk of half a dozen places with single pedestal chairs, known as the Sheffield system. The advantages of this system are:—1. The seats are isolated. 2. Each child is accessible. 3. Each child can stand by its seat in its place; drill can be taken for a minute or two with the children in their places. 4. Rooms cannot be overcrowded. 5. The tilting of each desk on end for cleaning the floor is not required. The child should be able to lean back and the surface of the desk should be adjustable.

Blackboards.

Blackboards should be kept clean and should always present a deep black ground. This end will be secured if damp cloths are used for cleansing purposes.

Slates.

Slates should, in my opinion, be abolished, because even when quite clean—a rare occurrence—the writing thereon is not nearly so legible as that written in ink on white paper.

Writing.

I recommend a vertical style of writing, instead of the slanting one, as it is less likely to produce a contorted attitude.

Fatigue.

In the management of their classes teachers should be on the look-out for signs of fatigue. When children are noticed lolling and yawning or sleeping in class, there is generally some vicious influence at work, e.g., excessive length of lesson, impure air, insufficient amount of sleep of child at night.

Excessive length of lesson.—Chadwick pointed out many years ago that the length of time during which the attention can be fixed on a lesson is very short in early childhood, and gradually increases. At 6 years of age the attention can be fixed on a lesson for 15 minutes; at 7 to 10 years, 20 minutes; at 10 to 12 years, 25 minutes; at 12 to 16 years, 30 minutes. The correctness of these observations has many times since been confirmed.

Children could not have a lesson exceeding half an hour at the outside, and after two lessons of dissimilar characters, an interval of 15 minutes should be allowed. The apparent loss of time is easily made good by the increased power of receptivity of the child's brain.

Impure air.—I have already mentioned that the classroom should be properly ventilated. Experience has shown that the purer the air of the schoolroom the better is the work of the children.

Sleep.—The hours which a child spends in sleep should be about 12 for infants and 10 or 11 for children up to 12 years of age. Many children have an insufficient amount of sleep.

No brain work should be allowed for at least half an hour after a meal, and after a gymnastic lesson the work is so poor as to be almost useless. Teachers have noticed that work is always better at the beginning of the week, and it has been suggested that instead of the time-honoured whole holiday on Satur-

day, two half-holidays should be substituted, viz., on Wednesday and Saturday afternoons.

The Education of the Teachers in School

Hygiene.

Physiology and hygiene should be taught in such a manner as to clearly show their relation to each other. Hygiene is closely dependent on physiology, and the object of much of the teaching given in a course of physiology can only be properly appreciated when its practical bearing on hygiene is grasped by the student. For example, the physiology of respiration will be much more interesting if the composition of the air and the nature and origin of its common impurities are studied in conjunction.

Teaching Hygiene in the Schools.

The teachers must be educated to such a degree in school hygiene that they can intelligently impart their knowledge to their pupils. Applied hygiene will then be a compulsory subject in the education of a teacher, and he or she must attend a proper course of lectures and demonstrations. One of the subjects taught in our primary schools is Nature study, and I have read a good deal about the comparative inutility of this branch of study; exactly how much time is given to it I do not know—it is proposed to devote some of this time, say 40 minutes a week, to the teaching of hygiene. It is very nice for children to know about the habits of insects and to have some knowledge of surrounding phenomena, but too much of this instruction can be given if it takes up the time that should be occupied by such an important subject as knowledge of the elementary laws of health and domestic economy.

Girls should leave school with some knowledge of the proper feeding and management of infants and general domestic affairs. There is at present no institution in this city wherein the duties of motherhood can be taught properly; were there such a place as a foundling hospital a want would be filled both for such education and the saving of infant life.

Teachers of boys and girls alike should be examples of immaculate cleanliness and tidiness—example goes for so much with children. The same qualities apply to the classroom. Continual inculcation of these habits of cleanliness and tidiness at school must have a beneficial effect in the home. The old advice to train up a child in the way it should go is good for all time. In correcting bad habits in children, *e.g.*, spitting, so common

among boys, the reason why should be stated, pointing out the dangers to others of such habits.

The dangers of intemperance and indulgence in tobacco by youths should be clearly laid before boys during the last year of their State school education, *i.e.*, at 14 years of age. While on the subject of tobacco smoking, I might say that I think all vendors of tobacco should be licensed, and that the sale of tobacco to children should be prohibited by law. We have all seen children of tender age smoking cigarettes, which can be procured at trifling cost from so many of the small general stores.

Domestic hygiene should include lessons on food suitable to growing children, and the importance of regular meals. I am afraid that many poor children do not get regular meals; whenever they are hungry they are given a piece of bread with jam most commonly; their stomachs are not educated to regularity, and the consequence is dyspepsia.

At this juncture I should like to make a few remarks about that important article of children's food, viz., bread. The method of baking nowadays is not of the best. How frequently one sees the pale, thin and soft crusted loaf. When one thinks of how many hands a loaf passes through before it arrives at its final destination—the condition of those hands, the method of carrying the bread about often exposed to the dust of the streets—one cannot be surprised at its being more or less contaminated; no precautions are taken to remove this contamination, and it goes dirt and all into the stomach. I think it is a wise plan, and, moreover, is the custom in my house, for the bread to be put into the oven and baked again for 20 minutes or so; in very few houses is this impracticable. Underfeeding of children is unfortunately common in many parts of the world, but in Adelaide there is usually abundance of food, only it is improperly given.

School Inspection.

Statistics to hand reveal the presence of many unsatisfactory conditions in children attending primary schools, *e.g.*, defective eyesight, adenoids, dental caries, and the results of personal uncleanness.

The subject has received considerable attention in England and elsewhere. Congresses both at home and abroad have advocated it. Already several countries have systematic medical inspection of schools; in Japan there

are about 6000 medical men employed for the purpose.

This important branch of public health administration requires for its efficient carrying out several agents.

1. *The teacher*, who must be sufficiently educated to recognise the early signs of the various exanthemata, signs of defective eyesight, defective nutrition, defective breathing, post-nasal growths, etc. He should also be familiar with the signs of fatigue, physical or mental, which to the experienced teacher are the gauge on which he keeps his eye in regulating the work of the class.

It is obvious that the amount of study of this nature which can possibly be included in the ordinary course of training for teachers will not enable them to do more than select those cases which apparently require further investigation. That further investigation must be made by fully trained medical men who have, moreover, made a speciality of this kind of work, and no form of educational organisation can be considered to be complete which does not make provision for the systematic reference of questions of school hygiene and the special treatment of individual scholars to medical experts.

The practice of notification of the headmaster by the medical officer of health of any prevailing epidemic would be of great assistance in checking its spread.

2. *A trained nurse*.—The second agent, and an important one, is a trained nurse, whose duty it would be to make a careful examination of every child in every school, paying particular attention to evidences of personal uncleanness, *e.g.*, pediculosis, impetigo, ringworm, trachoma, discharge from the ears, physical defects and evidences of infectious disease. A large number of cases found to be unsatisfactory could be referred to their parents by the headmaster with a card stating the nature of the complaint and a demand that the child be attended to by the family physician. Many of these children need not be seen by the medical inspector, only such cases as necessary being reserved for his inspection. In no case must the nurse advise treatment.

Trained nurses for school inspection are employed in some parts of London and do most valuable work. They should be under the control of the Central Educational Board, and each nurse should have her quota of schools to attend to; her work could be done in school hours and would not interfere appreciably with class work. The frequency of

the nurse's visits to a school would depend on the number employed by the Board of Education. The district nurse should not be employed for this purpose, as her duties are quite distinct, and, moreover, onerous and numerous enough.

3. *The medical inspector*.—The third and most important agent is the medical inspector. Should he be a whole-time officer or the local medical officer of health, or a general practitioner?

To be effective daily inspection is required and preferably at the beginning of the school day. No whole-time officer or local medical officer of health could be in several places at the same time. The plan of appointing the local medical men as inspectors has worked well where it has been tried.

The Duties of the Medical Inspector would include daily attendance at the school at the earliest possible hour of the school day for the purpose of inspecting such cases as have been selected by the teacher and the nurse. In no case must he interfere with the patients of another medical man in the way of advising treatment. He should work in conjunction with the medical officer of health in so far as is possible. Families should not be annoyed by too many medical men visiting the home for the purpose of inspection of children.

Although the rules and regulations of the Board of Education deal with the exclusion of pupils known to be suffering from infectious disease, many children suffering from mild attacks of scarlatina, diphtheria, etc., have never been seen by a medical man, and after a day or so at home are sent back to school to spread infection far and wide. This is a class of case medical inspection would reach.

There is no reason why all resident medical men might not be appointed medical inspectors if they are willing to act and prove themselves capable of carrying out the duties. The *modus operandi* could be a matter of mutual arrangement.

Remuneration of the Medical Inspectors.

With regard to remuneration the fee should be so much a head for each child inspected—not so much a school—and the amount determined by a joint committee of members of the medical profession and the educational authorities, subject, of course, to Parliamentary sanction. Three representatives from each body, with an independent chairman, would suffice. As the Medical Defence Association has the control of medical ethics,

etc., I would suggest that the three medical representatives be elected by it.

At the beginning of a child's school life, say, seven years of age, he should be medically examined, and the results recorded in a suitable book, and the record could be passed on to another school in case of change of location. Again, at the end of the school period another examination should be made in order to indicate what pursuit in life it would be best for the subject to adopt.

Physical Exercise.

This necessary branch of the education of the young has been receiving considerable attention, and rightly so, for some time past. The nature of the exercises need not detain us. We shall only consider them from a hygienic point of view.

Avoidance of monotony is one of the most essential points; once allow a child's attention to wander and it loses all the benefit of a lesson. Certain children ought at times, or altogether, to be excluded from participation in the exercises. Teachers should be so instructed that they might be able to pick out unsuitable pupils.

The aim in physical exercises properly taught is to get the brain to govern the body; it is not sufficient to do certain exercises mechanically, but to give the whole attention to understanding what each movement aims at doing, and to do it as carefully and thoroughly as possible.

Certain games, like cricket, properly played, rise to the level of physical education. In every department of this game how necessary is it to watch and execute with precision all the movements brought into play.

Physical exercise improves nutrition, stimulates the action of the lungs, accelerates the action of the heart, improves digestion, the appetite and the nutrition of the nervous system, and quickens the operations of the mind. Besides these it restores wasted or undeveloped muscles. It keeps the body young, and should be continued throughout life. An ideal system of physical culture can never be attained until systematic games are included in it. For this purpose more space should be allowed to schools for recreation purposes. Care must always be taken to avoid overstrain.

Defective Eyesight.

Text books give a scientific description of the structure and mechanism of the eye, but they contain no information to guide the teachers as to the conditions to be guarded

against as likely to be injurious to that important organ. As mentioned previously, the light of the classroom should come from the left, and blackboard work should, in infant classes, take the place of microscopic reading and writing.

A teacher sees a child's face too near his book, and concludes that his eyesight is at fault; he should insist on having that child's vision attended to, and if medical examination proves the presence of a defect, should see that he wears the glasses prescribed, because myopia (short-sightedness) is a progressive disease, and tends to increase if not properly treated.

All ophthalmologists are agreed on the following two points:—(1) Myopia may be acquired by the children of parents not themselves myopic; (2) myopia, once acquired, tends to increase if the causes which produce it are allowed to continue.

A child may be born with hyper-metropia or astigmatism. They are congenital deformities in fact, but the shape of the eye of the future myope is not elongated at birth. The eye during childhood grows gradually longer, but it is not until 11 years of age that it has elongated so as to attain the normal length in proportion to the other dimensions.

It is a significant fact that myopia generally first begins to become troublesome at the age of eight or nine. The causes producing it must have been at work before this. Dr. Sayer found that at six years of age 81 per cent. had normal vision, and only 3.5 per cent. serious defects; but at every succeeding quarter of a year of age there was an increase in the defects until at eight years old only 77 per cent. had normal vision, while 8 per cent. had serious defects; this proportion increased until at 11 years old it was 11 per cent. She points out that this means that in London alone, with approximately a million school children, at least 25,000 of the number are being seriously handicapped in all their pursuits—both work and play and general observation.

"Of the various theories to account for myopia that is most worthy of belief which attributes the chief part in its production to passive and active hyperæmia produced by close work, leading to the bending forward of the head due to badly-constructed school-desks; by the fumes of stoves; by tight collars; and still more by accommodation and convergence, especially when the light is bad, the object small or the print bad.

Finally, the strain on the optic nerve and the increased action of the oblique muscles combine to increase the long diameter of the eyes."—(Netolitzky, *Handbuch der Schulhygiene*.)

Myopia in childhood, even though not severe at the time, must be regarded as a serious condition, inasmuch as it is not only probable that the error of refraction itself will increase, but that it will tend to disease of the fundus oculi, which diminishes the acuteness of vision, and may, as is well known, eventually lead to blindness. The predisposing causes of myopia are heredity and malnutrition, whether from disease or want of food.

Mr. Henry Power has insisted on the importance of a full and sufficient diet, and disapproves of work being done before breakfast.

The corollary from the consideration of the above facts is that writing, reading, sewing, and knitting should not be taught to infants under seven years of age, as being likely to produce myopia.

The principal causes of myopia being convergence of the eyes and stooping of the head, it is obvious that everything should be done to prevent these conditions in schools, and in order to accomplish this it is important that every teacher should be impressed with the following important points:—1. Ample supply of light. 2. The light must fall upon the work from the proper direction. 3. The object looked at must be easily distinguished. 4. The object must be so placed as to be seen without stooping. 5. There must be a distance of not less than 10 in. between the eye and the work.

That myopia scarcely ever exists before the age of five, and that statistics taken in elementary schools prove that from that age onwards the number of children who suffer from it steadily increases, goes to show that school conditions must be defective.

Dr. Kerr says that the real harm of defective vision and of school work not adapted to the visual capacity of the young lies in the strain thrown on the developing nervous system.

As mentioned before, the eyes of children under seven years of age must not be strained. At a school conference in London a few years ago one of the speakers said that whereas we generally account a university professor as the most important of our teachers, infinitely more important is the nursery governess or the teacher in the kindergarten. Every effort should be made to properly train these

women in as broad-minded a manner as possible.

A child under seven should be taught the large so-called coarse movements in order that it should gain motor control. If drawing be taught the surfaces of the drawing boards should slope gently and be placed at an average height round the room, and all work should be done standing for the free exercise of the large muscles. If coloured chalks are used these should be of the most artistic shades so that the colour sense might be properly developed.

The readers to be used, when the children are old enough, should be printed in good clear large type on thick paper, through which the type on the next page cannot show.

Adenoids.

Next in importance to defective eyesight come post-nasal growths. As medical men we are familiar with the pernicious effects these exert on the respiratory system and on the middle ear.

The signs of their presence are characteristic and familiar to most people. I shall not detain you with this part of my subject beyond emphasising the necessity of early treatment. Many children who are apparently semi-idiotic are really the victims of post-nasal growths, and rapid improvement takes place in their mental development after proper surgical treatment.

Deafness.

Deafness is closely related to adenoid growths. Middle-ear trouble is also a sequel of many of the infectious diseases. It is important for a teacher to be aware of the existence of this malady in a pupil.

Tuberculosis.

Practically we must distinguish between tuberculosis of the skin glands, joints and bones, lungs and brain. The pulmonary form is, of course, the most dangerous from the contagious point of view, as children suffering from it have been found attending school. Children suffering from consumption should, for their own sakes and those of others, not be admitted into schools.

There should be proper sanatoria to send children to when they are discovered to be suffering from the disease. Children being educated by the State should be rendered as little susceptible as possible to the risk of contracting the affection by having the school hygienic conditions satisfactory.

The system adopted in some countries of allowing the children suffering from chronic

tuberculous disease of the bones and joints to receive suitable instruction during the progress of the treatment has much to recommend it. The instruction, of course, would not be at a school, but at the institution where they were receiving treatment, and preferably in the open air. Many of these sufferers get cured of their disease, and unless educational measures are proceeded with they fall far behind others of the same age.

No opportunity should be lost of impressing children with the necessity of taking steps to avoid contracting consumption. All the various predisposing causes should be drilled into their heads, and the means to adopt in the way of prevention clearly defined.

Exanthematous and Allied Diseases.

Under this heading I include measles, scarlatina, diphtheria, pertussis, etc.

As the various exanthemata, especially measles, are more serious in children under five years of age than later on, it is argued that such children should not be allowed to attend school at all, as it is at the school that infection is generally spread. On the other hand, medical inspection at an early age frequently detects the existence of defects requiring attention, *e.g.*, adenoids, and the earlier such affections receive treatment the better; however, these little children, as long as the instruction is of a proper kind, will benefit from the teaching of elementary hygiene, good manners, etc.

So I would not object to early attendance at school, but I think that the teachers of these little ones should be able to recognise at once the early signs of the various exanthems, and would lay special stress on the value of coryzal symptoms and Koplik's sign* in measles.

In passing I should like to draw attention to the large number of deaths due to measles, also that many dangers follow in the track of whooping-cough, and even mumps.

Dental Caries.

Examination of the teeth of children has shown that dental caries is excessively common, and this is our own experience from observation here in Adelaide. The enormous percentage of children of the present day who suffer from disease of the teeth, both temporary and permanent, makes it imperative that the greatest attention should be paid to the care and preservation of these important organs.

Time will not permit me to deal fully with this portion of my subject; suffice it to say that children should receive dental care for their primary teeth. Those worth stopping should be stopped, and those not worth it removed. More harm is done by the presence of a carious tooth in the jaw than the problematical danger of want of space for the coming permanent tooth.

To prevent dental caries, children should keep their teeth clean, and school drill should include toothbrush drill, special racks being kept for the brushes in the school building. It is a very difficult matter to get boys of whatever station in life to clean their teeth, and such a procedure in poor children is practically unknown.

Cardiac Disease.

Under the heading of physical exercise I mentioned that some children should be excluded from participating in them. Children with heart disease should exercise great care so as not to interfere with compensation. All such children should have a medical certificate showing their capabilities for muscular exertion.

Rheumatism.

The various inspectors should be watchful for signs of this serious disease in childhood. The symptoms are mild, apparently, but the danger to the heart is great.

When a child complains of "growing-pains" it is as well to assume that it has rheumatism.

Clothing.

In this State, children, as a rule, have plenty of clothing, and in fact the children attending our schools are nearly all remarkably well-dressed. A bad habit among many people is to wear flannel underclothing in bed. Sir F. Treves has pointed out that the irritation of the flannel keeps the skin awake, and that it should not be worn in bed.

Waldschulen, or Open Air Schools.

In Germany, there is a system of educating delicate children in the open air of the pine woods, and a very excellent one it is. Our extensive park lands would be very suitable places for such a method.

The education of epileptics should be carried on in a special "colony," concurrently with appropriate treatment. The nerve storms that these unfortunate children suffer from have a bad influence on the work of a class, not to mention the psychical effect on the other pupils.

*The appearance of the rash on the soft palate.

Secondary Schools.

Up to this point I have been dealing with State or primary schools. Before closing, I wish to make a few remarks about secondary schools. Much of what I have said applies equally to both classes of school.

I do not advocate State inspection of secondary schools, but I think all such establishments should be forced to comply with the provisions of the Health Act. Parents should have reasonable assurance that their children's health will not be endangered by insanitary conditions either in the classrooms or the boarding-house.

Let me here enter a protest against the system of giving children so much home work. I think that too much time is devoted to hearing lessons learnt at home and too little time given to teaching in school hours.

Each large secondary school should have a medical officer, who would advise the authorities in all matters relating to school hygiene. In large secondary schools athletic games receive great attention. To excel in these more or less training is necessary. I would like to draw the attention of parents and teachers alike to the necessity of medical examination of boys in order to ascertain their fitness or otherwise for such a course of physical culture as training, and further examination would be necessary in order to determine what effect this training had on their circulation.

Avoidance of over-strain is the principle to follow. Fit the muscles gradually for the work they have to do, like the wrestler of old, who, to perform the feat of lifting a full-grown bull, trained his muscles to the task by starting to lift him as a calf, and so on from day to day until the end was achieved.

Some large secondary schools appoint from among the most advanced senior boys a number of prefects, to whom, to a great extent, is entrusted the "tone" of the school.

Now we all know that the school age of boys from 14 to 18 years is a critical one, and many dangers beset its path. It is assumed that parents warn their sons of these dangers, but I am afraid that many do nothing of the sort, with the result that much mischief is done. Most of us recollect how much Squire Brown was perturbed in his mind as to what advice he should give Tom when he left his home for Rugby, and how finally he blurted out "Don't do anything, my boy, that your mother and sisters will be ashamed of." Boys should not be allowed to go out into the

world entirely ignorant of the consequences of vicious habits. Obviously, it would be difficult to impart the necessary knowledge of such subjects to a large body of schoolboys, but I think that if the school medical officer gave a short series of lectures, accompanied by practical demonstrations, to the prefects, these boys could pass on their knowledge to those of their school-fellows old enough to appreciate it.

Tennyson says: "Self-reverence, self-knowledge, self-control, alone lead men to sovereign power." The aim of hygienic instruction, mental and moral, is the inculcation in the rising generation of these three qualities.

CYST OF THE CEREBELLUM.

By J. C. Yerco, M.D. (Lond.), F.R.C.S. (Eng.),
Adelaide, S.A.

L. W., *æt.* 37, married, admitted to Alexandra ward, Adelaide Hospital, April 25th, 1908, died May 20th, 1908. She has had four children (last four and a-half months ago); good delivery. Remained in bed two weeks, and had been up and about for two weeks. Then the headaches came on. No miscarriages. Headache began three months ago; very severe; vertical.

Vomiting from the first; no relation to food; might be free from it for a fortnight. Sight has been failing for a month, but chiefly during the past two weeks; weakness has gradually increased. Pricking and cramps in both arms and hands and a feeling of stiffness when first ill, but not now. Appetite fair till last few days. Bowels costive. She has been unable to shut the right eye during the past two days, and food gets between the teeth and right cheek. She has right facial palsy of forehead, eye and mouth, and the right side of the face feels stiff. The pupils are equal and dilated; they react sluggishly to light thrown in centrally, not peripherally; they contract on accommodation to her own finger. Cannot tell light from dark. Ocular movements normal, except some palsy of the right external rectus.

Marked double optic neuritis with flame-shaped hæmorrhages. No ptosis. No affection of olfactory or of the 5th, 8th, 9th, 10th, 11th or 12th nerve. The grip of the left hand is slightly better than that of the right. Right knee-jerk rather better than the left. Plantar reflex slight on the right side, none on the left, flexor. Can stand with feet together; cannot stand on the right leg quite

so well as on the left. No affection of sensation anywhere or of any kind. Urine 1011; no albumen, sugar, or albumose. Put on hst. pot. iod. (gr. 5), 4ts. hor.

2/5/08.—Better. No vomiting or headache. Less paralysis of right facial, and can see shadow of fingers, but cannot count them. Plantar reflex on left side. Has aching in right side of neck, and tenderness behind the right mastoid, when the occipital bone is pressed.

10/5/08.—While being fed she suddenly became stiff all over, and her head and neck were retracted. No twitching seen; only lasted a few seconds.

12/5/08.—Had a similar fit while a friend was with her.

13/5/08.—Still some right facial palsy. Nothing abnormal palpable in pharynx or at base of skull.

16/5/08.—Lumbar puncture in third space; fluid quite clear and colourless. Precipitate on centrifuging showed no white corpuscles. No abnormal precipitate in supernatant fluid after heating, mixing with mag. sulph. filtering and then boiling again.

19/5/08.—Had another fit soon after 9 p.m. Was moaning, and did not answer. Pulse weak and irregular. After a time became conscious and spoke, and pulse improved. At 10.15 p.m. breathing was stertorous, pulse very irregular; was unconscious. The respiration grew sighing with gradually increasing intervals, and then ceased, pulse being weak and very rapid, but regular; was cyanosed and had rather contracted pupils. Artificial respiration was kept up for one and a-half hours with improvement of pulse, but when respiration was discontinued pulse failed and she died.

Post-mortem the brain only was examined, and contained a cyst in the right hemisphere of the cerebellum, about as big as a cherry, in the biventral lobe, somewhat anterior, close behind the flocculus and coming within a quarter of an inch of the under surface of the brain. There was no hydatid membrane, but after hardening in formalin a soft fibrinous clot was found with surrounding clear fluid.

The diagnosis was: A tumour of the brain, probably in the right lobe of the cerebellum, pressing on the right sixth and seventh nerves, so causing paralysis of the face and external rectus, and slightly upon the pyramidal fibres of the medulla after their crossing, and so giving a scarcely noticeable weakness in the right arm and leg. This localisation was supported by the pain in the right side of the

neck and the tenderness on pressure upon the right side of the base of the occipital bone. The absence of inco-ordination on standing and of giddiness, and of vomiting during her stay in the hospital, of nystagmus and of skew deviation of the eyes, made me rather too uncertain about the localisation of the growth to ask the surgeon to explore her cerebellum, and, while hesitating, she died.

Evidently a cystic tumour of one cerebellar hemisphere may kill without giving rise to any of these essentially cerebellar symptoms, and should be diagnosed in their absence. I doubt whether it would have been detected at an operation, being quite on the under surface of the hemisphere, rather far forward, close in by the middle lobe, a quarter of an inch deep in the brain, and so small.

The interference with respiration without affection of the cardiac centre is very interesting. As long as artificial breathing was maintained the pulse beat strongly, and only ceased after this had been discontinued for some time.

The fits were those of tumour of the middle lobe, with retraction of the head and general stiffness, rather than those of a tumour of one hemisphere, viz., homolateral spasm with rotation round the longitudinal axis, probably because it was nearer to the middle lobe than to the cortex of the hemisphere, and so irritated that rather than this.

TETANUS.

By A. G. Salter M.B., Ch.B., (Melb.), Brisbane, Q.

A COMPOSITOR, *æt.* 20, was seen on March 25, 1907, by my *locum tenens*, Dr. Wallace. He was then complaining of stiffness in the neck and jaw, which had been gradually increasing for five days. The only lesion present was suppuration from the alveolar cavity of an upper incisor, which had been extracted four months previously after having caused some swelling of the face. The incubation period is therefore unknown. Dr. Wallace diagnosed tetanus, and the same day (sixth from onset) injected under the skin of abdomen 20 c.c. of antitoxin, also extracted the adjacent lateral incisor, which was loose.

I saw him next day, when he complained of being worse. He could hardly separate the teeth; limbs were rigid, abdomen boardlike, and spasms were excited on handling, especially on eliciting plantar reflex. I sent him to the Alexandra Hospital, and hoping to remove some toxins took 12 oz. of blood from

the median basilic vein, then ordered a pint of saline per rectum, and injected 60 c.c. of antitoxin hypodermically; also ordered hypodermic injections of carbolic acid according to Baccelli's method—2 c.c. of a 2 per cent. solution every four hours. Next day (eighth from onset) he was in the same state, and was seen in consultation by Dr. L'Estrange, who advised a continuance of the treatment. Next day, as he appeared worse, 50 c.c. more serum was injected. General symptoms continued to be severe from this time, spasms being severe until the 16th day from onset, i.e., for one week after receiving 130 c.c. of antitoxin, and not ceasing until the 22nd day from onset. Recovery was then gradual, and rigidity diminished until patient was able to go out on the 33rd day from onset. Retention of urine occurred on the eighth day, and catheter had to be passed on and off until 11th day from onset. This I attributed to the use of morphia, which was given at intervals to relieve pain and give sleep, and seemed to act well. Temperature ranged from normal up and down to 101.5 from sixth to fifteenth day, after which it remained normal, and on the twelfth day an urticarial and erythematous rash came out on the thighs and back, which was very irritating. This and the accompanying temperature was probably due to the antitoxin, and from reports of other cases I find that a rash is fairly common about a week or ten days after administration of tetanus antitoxin.

Locally the tooth cavity was swabbed out with pure carbolic, and kept syringed with hydrogen peroxide solution. The patient took plenty of fluid nourishment throughout, which no doubt had a favourable influence on the course of the disease. He also perspired profusely during the spasmodic stage. The carbolic was injected for 17 days, and then gradually reduced.

On considering the effect of treatment it cannot be said that there was any apparent improvement following on the administration of antitoxin. Spasms were not controlled, one of his worst days being that after a dose of 60 c.c. of antitoxin, and spasms continued to be severe for a week after having had 130 c.c. of serum, and did not cease altogether for another week. Owing to this apparent absence of any improvement from its use, serum was discontinued, though carbolic was continued. In the end I was inclined to think that the patient's recovery was due to carbolic treatment; but on further con-

sideration of the case, and after reading accounts of other cases, have come to the conclusion that treatment, apart from nursing and general palliative measures, had no effect.

Tetanus occurs in all degrees of severity. In Clifford Allbutt's System we read that in cases with an incubation period of under ten days only 3 to 4.5 per cent. recover. When incubation period is 11 to 15 days, 25 per cent. recover. When longer than this, half the cases recover.

Again, quoting from Kanthack's collection of cases treated with serum, Sims Woodhead says that in the majority of fatal cases the patient did not survive the fourth or fifth day.

In the case related above, we do not know the incubation period; but I think we must regard this as a mild case, as though the patient had serum on the sixth day after onset of symptoms, severe symptoms did not set in until after this, when they continued, apparently uninfluenced by treatment, the disease advancing to its height and then defervescing, probably after the establishment of an active immunity.

There have during the last two and a-half years been several cases of recovery from tetanus treated by antitoxin recorded in the *British Medical Journal* and *Australasian Medical Gazette*, and in analysing these we will find that in none can recovery be properly attributed to the antitoxin. If we take averages in eight cases where necessary data are given we find that incubation period averages 10½ days, day of first antitoxin administration averages third day from onset, day of first spasm averages third day from onset, day of last spasm averages 13½ days from onset.

Thus, the injection of antitoxin, though persevered with in many of the cases, does not appear to have had any real influence in abating the clinical manifestations of the disease—that is, spasms continued on an average for over ten days after the first dose of antitoxin, and rigidity for much longer.

I will, as an example, detail one case, in which the author attributes recovery of the patient to the use of antitoxin.

Patient, *æt.* 19, suffering from gunshot wound of leg. Incubation 14 days; first symptoms difficulty in opening mouth. During the week following onset the patient developed all symptoms of a severe attack of tetanus, with frequent spasms and opisthotonos. Thus, before any treatment by serum the disease was well generalised. Twelve

days after onset patient was trephined over left motor area, and 20 c.c. serum injected under dura. The day after patient was much better; spasms were less intense; was convalescent and discharged 53 days after onset. We have no particulars as to how long spasms lasted after injection of antitoxin, nor was any more than one injection of 20 c.c. given. Other treatment was chloral and bromide. In examining this case we see that there was a long incubation period—14 days—carrying with it a consequently fairly favourable prognosis. The patient had marked symptoms, becoming generalised and severe for twelve days from onset before treatment with antitoxin. Now, in Kanthack's collection of cases treated by serum the majority of fatal cases did not survive five days; but this case survived twelve days before serum treatment, indicating the favourable nature of the case.

The time at which serum is given is very important. In his evidence before the Royal Commission on Vivisection this year, Dr. Martin,² Director of the Lister Institute of Preventive Medicine, said that as a prophylactic the power of serum was fully established, and in veterinary practice had proved infallible; also that the serum treatment in a case of tetanus which had developed was not very hopeful. Sims Woodhead³ says that the serum experimentally injected into rats and rabbits on the appearance of first symptoms of tetanus is always a cure, but never if tetanus has generalised. As a prophylactic it was also found to abolish the incidence of tetanus in the German Contingent in China, when given to all cases of dirt-contaminated wounds, and also in Paris Hospital practice. Quoting Sims Woodhead³ in Clifford Allbutt, again we see that the amount of serum required for cure in rabbits after local symptoms have commenced is at least one or two thousand times greater than that required to confer an antecedent immunity, and 150 times as much as this is required for success when local symptoms have reached their height. Therefore we see how important it is for serum to be given at the earliest stage if there is to be any result from its action.

In the face of these authoritative statements how can we attribute cure in the case related above to the small dose, 20 c.c. of antitoxin, administered after the lapse of twelve days from the onset with generalised tetanus already developed. No doubt the patient here had passed already through the most acute part of his attack, and the disease

naturally defervesced, an active immunity being gradually established. The same line of argument applies more or less to the other cases.

I have not read any satisfactory explanation of the failure of antitoxin to abate symptoms when given after these are developed. If the toxin were neutralised one would expect spasms and other symptoms to abate within a short time after the administration of serum, yet from the cases analysed above we see that though antitoxin was given on the average on the third day after onset, yet spasms continued on an average for fully ten days after this, and rigidity for much longer.

It is said that serious damage is already done to the nervous system, which, of course, cannot be repaired by antitoxin. Perhaps it may be that the bacilli remain for many days unaffected by tissue reaction (i.e., opsonins are formed very slowly), and so we have a continuous production of toxins by the still active bacilli, which, being extremely potent, some must reach the nervous system in spite of the presence of antitoxin, and this might account for the continuance of symptoms. If this is correct we may assume that abatement of symptoms coincides only with destruction of the bacilli by the vital reaction of the patient's tissues.

In a case of diphtheria a few days after the injection of antitoxin we observe the gradual disappearance of the membrane. One is apt to say "the antitoxin is causing the membrane to dissolve away." I am open to correction in this matter, but think I am right in saying that the antitoxin does not itself act on the local lesion and bacilli, but gives the patient a respite, preventing him from being overwhelmed by an acute toxæmia, so that his tissues can react and produce opsonins and so facilitate the destruction of the bacilli.

If we had a local lesion in tetanus analogous to that in diphtheria, which we could observe in the same way, we would probably find that there was a much slower disappearance of this, corresponding with our assumed slower destruction of the tetanus bacillus.

On considering, therefore, the apparent inaction of antitetanic serum in practice, one can understand Wright's position in recently making a damaging pronouncement concerning the serum treatment of disease, and advocating his own method of conferring immunity by vaccination. Granting the point, which seems generally accepted by

authorities, that the antitoxic treatment of tetanus is ineffective after development of symptoms, perhaps treatment by anti-bacillary methods might prove more effective.

As to Baccelli's method of treatment by hypodermic injections of carbolic acid, I have not much evidence. In my own case the same remarks apply as to serum treatment, though as the dose given here was smaller than recommended it cannot be said to have had a fair trial. In a case reported in *B.M.J.*, June 9th, 1906, a vigorous antitoxin treatment was adopted concurrently which obscures the issue. Baccelli claims that it has an antiseptic and specific action in inhibiting the growth of the organism and neutralising its toxins.

A few particulars of the action of carbolic acid on the tetanus bacillus may be of interest.

A 1 in 20 aqueous solution takes 15 hours to kill tetanus spores. A 5 per cent. solution is used to differentiate tetanus cultures from others as tetanus is resistant, whilst others are killed; so, if carbolic injections have any action, it must be other than directly on the bacilli, for even if it should reach the infected area unchanged, which is doubtful, it would be in too minute a quantity to have any effect.

In conclusion, I think that in my own case, as in the others quoted, it may fairly be said that they would have recovered equally well under ordinary treatment. At the same time, as the prophylactic value of the serum seems well established, also its efficacy when used at the earliest stages in experiments on animals, I think we should give a large dose at the earliest opportunity, and so attempt to give the patient the benefit of the only rational method of treatment which we at present possess.

REFERENCES.—1. *British Medical Journal*, June 12, 1907
2. *British Medical Journal*, February 23, 1908. 3. *British Medical Journal*, June 1, 1907, p. 1332

(Read before the Queensland Branch of the
British Medical Association.)

MANIFESTATIONS OF FILARIASIS AS IT APPEARS IN QUEENSLAND.

By E. S. Jackson, M.B., Ch.B., Brisbane.

I HAVE undertaken to read some notes on filaria, and am induced to do so because I am of opinion that it is a subject to which we shall have to pay a great deal of attention in the future, rather than because I am a learned light upon the subject. It seems to me that the number of people who harbour this para-

site in Brisbane is greatly on the increase. Hardly a week passes without a case needing operation. If this be so with other observers than ourselves it becomes increasingly necessary to take steps to prevent the disease. I must confess that I am dependent entirely on the microscopical work of others. I have not now time to work at that instrument. If this paper will but attract others' attention to the need for work at the subject, and for recording the results of that work, I shall consider that I have done something. If it shall lead to steps being taken to prevent the pest, I shall consider that we have done much for the State of Queensland. In looking up the literature of the subject one cannot fail to be struck with the few papers that have appeared in the *A. M. Gazette*. In 15 years there have only been about four communications upon the subject. This no doubt is due to the fact that we are all more or less busy at general practice, and that does not allow of sufficient time to work at the subject.

I have prepared a list of the varieties of filaria that are to be found in the human subject, and have very briefly mentioned the characters attributed to each; but as the filaria nocturna and Bancrofti are the forms most familiar to us in Queensland they will occupy most time.

Filaria nocturna (F. sanguinis hominis).

Filaria diurna.

Filaria Demarquaii.

Filaria Perstans.

Filaria Ozzardi.

Filaria Gigas.

Filaria Magalhaësi.

Filaria Philippinensis (Ashburn and Craig, Philippine Islands).

Filaria immitis (observed in dogs in Queensland).

Filaria Medinensis, or guinea-worm.

Filaria Loa.

Filaria Volvulus.

The last three inhabit the connective tissues. So far as I know no connective tissue filaria has been observed in Queensland.

VARIETIES OF FILARIA.

I.—F. NOCTURNA, OR FILARIA BANCROFTI.

The variety that has been known to exist in Queensland for years is that whose embryo goes by the name of *F. nocturna* and whose parent form has been named *F. Bancrofti*, after the late Dr. Joseph Bancroft, who discovered it in the person of a young white native of Brisbane, who afterwards died under my care of an obscure internal inflammation.

This variety it is we suppose that produces all those manifestations of filariasis which we see in Brisbane so frequently. There may be other forms of filaria concerned, but so far as I know this is the only one as yet familiar to any observer in Brisbane.

Geographical distribution and prevalence.—

In this matter it concerns us principally to know that it has been found "in almost every country throughout the tropical and sub-tropical world" (Manson), and that in some of these countries it is said to affect one-half the population. The population of Queensland at the present time is not affected to that extent, nor do I suppose that it ever will be; but that such a state of things exists elsewhere is enough to emphasise the necessity for watchfulness to guard against an increase of the pest. There is one point as to its geographical distribution that has come under my notice. It has not as yet been observed in the Tweed River district, which river, for the information of those who may read these notes hereafter, forms part of the southern boundary of the State of Queensland. Therefore the southern boundary of filarial disease in this State is not far from the southern boundary of the State. Now, alongside this fact is another which may or may not have any association in the causation of the diseases concerned, and that is this: I am informed that though the inhabitants of the Tweed district came to Brisbane from time to time in considerable numbers throughout the dengue epidemic, and many returned to the district carrying dengue back with them, that no person who had not left the district got dengue. Now, it is known that filariasis is associated with certain varieties of mosquito (*Culex fatigans* and *Anopheles nigerrimus*), and dengue has also been said to be spread from patient to patient by some forms of *Culex*. If this be so, it may be that the particular varieties of mosquito concerned in the spread of both diseases are absent from the Tweed district. This suggests the thought that it would be a very desirable state of things to introduce into other parts of the State of Queensland—of which I hope to say more further on. Ashburn and Craig, in Philippine Island, seemed to have proved that dengue can be transmitted from one patient to another by *Culex fatigans* (*N.Y.J.*, June 15th, 1907). As to the life history of the parasite under notice, you are all quite as familiar with it as I am, but I have gathered certain information which may, I think, be

epitomised with advantage for our consideration somewhat as follows. The parent filariae live in pairs somewhere in the lymphatic vessels of their human hosts. Male and female are there together. They breed there, and the female gives birth to microscopical worms which are spoken of as "embryos." These embryos find their way along the lymph currents through the channels in the lymph glands into the thoracic duct and thus into the general blood current. So long as the female parent gives birth to her young at their "full time" no harm shows itself, for the embryos so liberated are sufficiently narrow in their long diameter to pass easily through the lymph channels without the latter being blocked by them. If, on the other hand, the embryos are liberated by the female parent before they are mature the lymph channels are blocked, because the immature or aborted embryos are too thick to pass through the channels. To the immature embryo and its failure to pass through the lymph channels in the glands may be attributed, in all probability, all the manifestations which go to form the local signs of filariasis, especially the more chronic manifestations. So in the manner indicated above the blood becomes infested with the embryos of filaria to such an extent that sometimes in a single drop of blood many may be seen. I have seen as many as half a dozen. Manson speaks of 300 or even 600 in every drop of blood. *Filaria nocturna* are to be seen in far less number during the day time in the blood of those of ordinary health and habit, but at five or six o'clock in the evening they begin to be seen in far greater numbers, and so they increase up to midnight, after which they gradually decrease. Mackenzie showed that this position was reversed by making the patient sleep during the day instead of night. Manson reports that he has ascertained that the embryos retire during the day to the larger arteries and to the lungs. Blood that contains embryos is sucked from the human host by the mosquito, whose hours of activity coincide roughly with the nocturnal appearance of the embryos in the superficial capillaries of those who are infected therewith. In the body of the mosquito the embryo worms have been found to get rid of certain sheaths which they wear while in the human vessels, and leaving these in the stomach of the mosquito they locomote and betake themselves to the thoracic muscles. Here they undergo certain changes of development, and

for the most part they make their way forward to the neighbourhood of the mosquito's proboscis. Here they lie in wait in pairs, ready to leave the mosquito through the proboscis when that insect is feeding from the human subject. This part of the life history of filaria was, I believe, revealed by the work of Dr. T. L. Bancroft, or at least he seems first to have guessed that the method of transmission was not so much through the pest being swallowed by its human host as by the mosquito injecting the filaria while feeding.

As to the causation of this disease. First and foremost it is apparent that the mosquito is responsible for the causation of human filariasis, but that the mosquito would be powerless to cause the trouble without having access to a person already infested. One is sometimes asked whether it is in any degree dangerous to occupy the same house with anyone already infested. I think it is pretty obvious that it must be so. Many families exist in which there are two or three members suffering from filaria. Occupation seems to have some bearing on causation. For instance, it is common among butchers, fellmongers and dairymen. It would appear to be more common among these occupations than among others. It is a curious fact that the employees from meat works eschew mosquito nets.

Sex.—In my experience it is far more commonly found in the male sex. It shows itself among males in the testes, and the groins especially. One wonders whether trouble would be found in the ovaries in the female sex. I have not, however, seen any evidence of it in any abdominal section for pelvic disease in male or female.

Age.—It is rare to find filaria in any but native-born population or in those who, born elsewhere, have come to the State in their early childhood.

Station in life.—As one would expect, the poorer classes are more frequent subjects of it than the wealthier. Neither are exempt.

There are some things that strike us in the consideration of this subject. We know that filaria is regarded as a tropical parasite. We hear that the disease is rarely seen in Sydney and Melbourne. It would appear that it is almost unknown in southern hospitals. One may safely suppose that many filarial subjects have from time to time gone south. What, therefore, prevents the disease in the south? One would assume that some of those who go down from here would show

sometimes some of the manifestations of the disease, that it would be more frequently seen in the hospitals, and more generally known by the disciples of the southern schools. The disease is unknown outside the tropics for the most part. Why? Is it only because the particular mosquito concerned is absent from other latitudes? Why is it that with persons infested with filaria in their midst affording the embryos ready to be sucked out by mosquitos and conveyed to a new human subject, Melbourne and Sydney escape without any cases developing in their midst? Does mere change of climate ever free the subjects of this disease from their guests? I have no experience which enables me to answer this. Perhaps in the discussion that may follow someone may refer to this part of the subject.

As to the symptoms and conditions produced by filaria nocturna and its parent, filaria Bancrofti, in Queensland, a list of its manifestations would include the following:—

1. Helminthoma elastica, so-called by Joseph Bancroft, or varicose groin glands (Manson).
2. Chylous dropsy of the tunica vaginalis, which might perhaps be called chylocelè.
3. Varix of the lymph vessels going to the testis, or lymphatic varicocele.
4. Filarial epididymitis and orchitis.
5. Elephantiasis of the scrotum and lower extremities.
6. Abscess in different parts of the body, frequently in the neighbourhood of Scarpa's triangle, and on the inside of the upper arm.
7. Lymphangitis.
8. Chyluria and hæmato-chyluria.
9. Filarial fever.
10. Lymph vesicle.

1. Helminthoma elastica (varicose groin glands) (elastic swelling of the groin). I do not myself think the word elastic at all describes the feeling conveyed to the fingers in examining this condition. The prominent feature of the tumour seems rather to me its softness, more especially when the patient is standing. With the patient lying down the tumour disappears for the greater part, so that the softness decreases and the glands themselves are more easily felt. The swellings vary in size up to that of a man's hand. In their early stages there may be no symptom of any kind, or no discomfort of any sort. Later, and as the tumour enlarges, there is a certain amount of pain and feeling of distension. There may be attacks of filarial

fever consisting of temperature ushered in by rigors and local signs of inflammation, probably lymphangitis. The lymph vessels in the neighbourhood may show evidence of this in bands of redness and thickness of the skin. I have a few times seen a band of lymphangitis, the breadth of two or three fingers, extending from varicose groin glands in Scarpa, outwards, below the iliac spine, towards the buttock. Once, I regret to say, I mistook such a condition for filaria, when it was really due to plague, from which the patient happily recovered. These inflammatory conditions usually disappear readily with rest and disinfectant fomentation, but are apt to recur. Between the attacks the wearing of a truss was advised by the late Joseph Bancroft. I have used trusses in the treatment of such cases, but I am not sure about them. It seems to me that the pressure of a truss on varicose groin glands would be likely to obstruct the lymph channels and increase the tendency to elephantiasis of the parts below. But little can be done except to advise the patient to minimise as far as possible the strains and lifting which his occupation may involve. If the swellings give important distress, if the attacks of lymphangitis are very frequent, I advise operative removal. The procedure I adopt of late is a vertical incision through the skin over the tumour, extending if need be from a point two or three inches above Poupart to below the apex of Scarpa. Through this the dissection of all the glands and dilated lymph capillaries that are to be seen. It often involves clearing the femoral sheath up to the femoral ring, and glands may have to be removed from the regions above Poupart down to the saphenous ring. There may be quite free exudation of chylous fluid in the process of dissection, and even after operation, but as a rule pressure stops it easily enough. It is advisable to use only catgut ligatures, and to introduce a drain at the lower end of the incision. Aseptic precautions must be absolute, for such cases are more than usually prone to fail in primary union. You will be wise, too, if you do not allow them out of hospital till the wound is completely healed, for the same reason. At present my position with regard to these cases is this. I leave them alone unless there is some disabling symptom or recurrence of symptoms. I advise operation only where the condition is a nuisance; but I am inclined to think that with accumulated experience of operation I

shall advise it more frequently. It seems rational to suppose that as in all other tumours there is less trouble in removing them while small.

2. Chylous dropsy of the tunica vaginalis, or chylocele, is similar in most respects to ordinary hydrocele. It is not translucent, and is often accompanied by other manifestations of filariasis. Its treatment may be conducted on similar lines to that of hydrocele.

3. Varix of the lymphatic vessels in the testicular cord, lymphatic varicocele, or lymphocele, is almost similar to varicocele in all its local signs. It is, I think, often indistinguishable therefrom. It sometimes affects the vessels in their whole extent from within the inguinal ring to the testis itself, and may reach the thickness of two or three fingers. Sometimes it so closely resembles an inguinal hernia as to be indistinguishable from that condition. It disappears on assuming the recumbent posture, without gurgling, and fills very slowly on reassuming erect position. In like manner it fills under any straining effort, and there may be more or less impulse on coughing.

Treatment.—I recommend in all such cases the same operation that I adopt for varicocele—incision, dissection of the varix from the rest of the cord, ligature at top and bottom, and resection of the varix. If the varix extend through the inguinal ring I do Bassini's operation for hernia, placing the upper ligature as high as possible in the inguinal canal. There is not quite the same risk of failure in primary union in these cases that there is in the helminthoma in the groin. I advise operation in all cases, because I have no doubt that such dilatations of the vessels are occasional causes of inguinal hernia.

Inguinal hernia is found to accompany this condition rather frequently, as are the other manifestations of filariasis. In this connection I may relate the following incident as a warning. I operated not long ago upon a case of double lymphatic varix with hernia on one side. There was no difficulty about the operation nor hæmorrhage after it, but my patient collapsed a few hours after and was dead a little more than twelve hours after. I have often done operations for double hernia at one sitting—never, I think, with double lymphatic varix though, and I do not propose to do so again.

4. Filarial orchitis and epididymitis.—Similar in most respects to the ordinary variety. The fever that accompanies it is

usually smarter and may be mistaken for malaria.

5. Elephantiasis of the scrotum and lower extremities.—I show photos of these conditions as I have seen them in Brisbane. There are also some photos of cases seen in Fiji. Such cases as those in Fiji are happily not within our experience in Brisbane. I suppose even in Fiji such cases as are shown in those photos are not so frequent at the present day. In Brisbane I do not think we should allow them to attain such dimensions without operating. There is nothing enticing about the operation. Simple removal of all the skin of the scrotum which is diseased, very careful ligature of the vessels with catgut and suture of the skin edges back and front together. If the skin won't meet the wound is left to granulate, and though I have always managed to find enough skin to cover the testes in my cases, I should expect a new scrotum to form as readily as I have seen it do in neglected cases of extravasation of urine. I expect some of you have seen extravasation result in complete denudation of both testes and have noted how the skin has been replaced without leaving any appearance of any such disaster having taken place.

In operations for lymph scrotum, beware particularly of sepsis from start to finish. Fatal sepsis is not difficult to attain. Elephantiasis is associated with other manifestations, but is particularly so with elephantoid fever or filarial fever.

6. Abscess in different parts of the body forms part of the manifestations of filariasis in Queensland. The most frequent spots for abscess are Scarpa's triangle, a little above or below it, and on the inner side of the arm above the elbow.

7. Lymphangitis and (9) Filarial Fever are quite common in all forms of the disease. They seem to be more common in the various forms of elephantiasis and in the various manifestations of the disease that appear about the neighbourhood of the groins. The general symptoms are an initial rigor and chilliness, followed or accompanied by a rise of temperature, headache, thirst, lassitude, perhaps delirium—the usual symptoms of fever. There may be vomiting, and if the local trouble be in the groin or inguinal region you may be tempted to diagnose the case as one of hernia; but the general symptoms of fever, etc., will be enough to distinguish.

The febrile attacks may end in a sweating, and this may suggest malarial fever. If there

be a distinct local and external lymphangitis, diagnosis will be easy enough, but it seems to me that there is nothing to prevent an attack of lymphangitis in some internal situation, and then diagnosis would be very difficult. The presence of embryos and other manifestations of filaria would point the diagnosis.

Patrick Manson believes that lymphangitis frequently marks the death of the parent worm, and it seems probable that the death of the worm would lead to lymphangitis from the absorption of the products from its disintegration.

8. Chyluria.—This name is given to that condition in which the urine contains chylous fluid which has leaked from a varix of the lymphatics of the bladder. Sometimes the urine is quite milky in appearance and sometimes it contains blood, and is red in colour more or less. Manson says that the blood is not due to rupture of blood-vessels in the bladder, but to the formation of blood corpuscles in lymph long retained in the varicose vessels.

Sometimes the urine contains coagula like jelly (milky in colour, or like apple jelly), and such coagula may give rise to retention of urine and great distress from tenesmus. The chyluria is often not constant. It may be absent on waking in the morning in bed, and come on more or less shortly after rising. It may come suddenly or go suddenly. Patients are sometimes subject to frequent relapses.

Treatment.—Absolute rest in bed with the foot of the bed raised; patient not to rise for any purpose.

I once had a patient in whom this treatment failed, because the clots in the bladder caused so much pain and tenesmus that the horizontal position had to be abandoned at each endeavour to empty the bladder. I had my patient on perchloride of iron, and it was not till I had added to it large doses of bicarbonate of soda that he got relief, the bicarbonate seeming to break up the large coagula. With this exception I have no drug to recommend. I have at various times tried most of those which have been recommended with no benefit.

10. Lymph-vesicle.—Sometimes a blister forms on a part of the skin which is elephantoid and leaks chylous fluid for some days.

2. FILARIA DIURNA

has the same dimensions and anatomical characters as filaria nocturna, and is periodic in its appearance in the blood of human beings, but is to be seen in the day rather than at

night. It was found in two patients, one from Congo and one from Old Calabar, the patients observing the ordinary hours of sleeping and waking. As it has been found in the blood of a patient who was also the subject of filaria loa, Manson suggests that filaria diurna is the embryo of filaria loa. Four cases of loa were, however, examined without finding any filaria diurna.

3. FILARIA PERSTANS

was discovered by Manson in the blood of a patient suffering from sleeping sickness, and has since been found frequently in the blood of those suffering from that sickness. It has been found in the inhabitants of tropical Africa and in the aboriginals in Demerara, in British Guiana. It exhibits no periodicity, in which characteristic it differs from filaria diurna and filaria nocturna, but resembles filaria Ozzardi and filaria Demarquaii. Its embryo is rather smaller than filaria diurna and filaria nocturna. It has no sheath.

Parental Form.—Discovered by Daniels in Demerara Indians. Body smooth, and no markings; mouth, simple and unarmed; tail, in both sexes, incurvated and mitred; dimensions not very different from filaria Bancrofti. Habitat, in connective tissues at the root of the mesentery, behind abdominal aorta. Symptoms.—Sleeping sickness has been attributed to it, but this has been denied by Low and Castellain in Uganda.

F. Demarquaii.—Geography—West Indies, Dr. Newsam, Manson, Galgey, Low, St. George Gray; no periodicity; no sheath; movements active, can shorten and elongate itself; caudal end sharp; shape like filaria nocturna and diurna; measurements, 0.2 mm. by 0.005 mm. (compare filaria nocturna or diurna).

F. Ozzardi.—Discovered by Manson in slides from Dr. Ozzard, of British Guiana. 1. Some blunt tailed and no sheath, very minute (0.173 to 0.240 mm. by 0.0043 to 0.005 mm. 2. Others sharp-tailed and very minute, but like filaria Demarquaii; active, retracting, elongating and locomoting; also parental forms, male and female, three inches long, very slender (half diameter of filaria Bancrofti); found in mesentery and abdominal fat, and in one case in sub-pericardial fat. Quote Dr. Daniels' table from Manson, p. 601.

Filaria Gigas.—Dr. Prout recently described. Very large; non-sheathed; blunt-tailed; strong affinity for fuchsin; parental forms and pathological significance both unknown. Existence since denied.

Filaria Magalhaësi.—Magalhaësi, Rio de Janeiro, found two sexually mature, male and female, in left ventricle of child's heart. Cylindrical, capillary, opalescent, white, uniform in thickness except where the body tapered towards the tail and at the club-shaped oral end; mouth simple, circular and unarmed; cuticle transversely skirted. Female 155 mm. in length, 0.7 mm. in diameter; male 83 mm. in length, 0.4 mm. in diameter. Tail of male has eight pre-anal and eight post-anal papillæ and two spicules. Life history and pathology unknown.

Preventive Measures.—I have considered preventive schemes from every point of view that has occurred to me and have come to the conclusion that whatever else is tried nothing will be complete without a raid on mosquitoes. How far this is practicable, or how far it would meet with assistance from civic or Government authorities, is another thing. Of this I am sure, that sooner or later on account of the filaria, need for dealing with the subject of prevention will be forced upon us. In my opinion, now is the time before the disease becomes more rampant than it is at present. In addition there seems to be little doubt that dengue, which, though perhaps not attended by a very heavy mortality, is sufficiently serious to paralyse business when it occurs in a very extensive epidemic, is carried by mosquitoes, and to destroy the mosquito is to lessen the incidence of the epidemic. The experiments of Ashburn and Craig seem to prove that dengue is carried by mosquitoes.

The destruction of the mosquito has attracted attention, and been successfully accomplished in more places than one. Sierra Leone, Lagos, New York, and Cairns (Queensland) have all reported success in this, and thereby greatly reduced the number of fever cases which have occurred in their midst.

Reasons for a raid on the mosquito summarised:—There is no doubt that the mosquito is answerable for much anguish in this world (and the next). He or she is credited with the spread of filariasis, which, those who are competent judges will bear me out, is greatly on the increase, and not only are there more cases but they are more severe. A kind of mosquito has been, I think, rightly accused of spreading dengue, of which, in various epidemics, we have had multitudes of cases (probably at least 100,000 in Brisbane and suburbs in our last epidemic). Further, there is the intolerable irritation

that sick people have to endure in having to lie behind mosquito nets, or allow themselves to become a prey to these little insects during morning, noon, and night. I am sure the experience of many of you must bear out my own of certain parts of this town. The Hamilton Hill, and New Farm, and West End districts are infested to an enormous degree. That small black mosquito that is so active in the day time is especially evident about New Farm, to such an extent as to make them an intolerable nuisance.

Now we are told that it is easy to destroy the mosquito while in the larval stage by adding oil to the waters in which this stage of development takes place, and that the destruction is an easy matter in tanks, etc.; and we know that the thing has been done systematically in other countries, and even in our own—at Cairns—but nothing to speak of has been done in Brisbane. Nor will anything be done till some one among our own ranks takes the matter up. There is the proposal for a School of Tropical Medicine by Bishop Frodsham for us to foster. It behoves us at once to take steps to further the destruction of mosquitoes amongst ourselves. Perhaps a deputation might wait upon the Health Commissioner and upon the Mayor and aldermen of the city, and if such an idea finds seconder and promises of support, I will put it before you as a motion.

(Read before the Queensland Branch of the British Medical Association.)

DIPHTHERIA CARRIERS.

By. W. G. Armstrong, M.B., Ch.M. (Syd.), D.P.H. (Camb.), Medical Officer of Health to the Metropolitan Combined Districts (Sydney).

The following brief account of an outbreak of diphtheria in the western suburbs of Sydney contains some points of interest that appear to render it worth recording. It presents an illustration of the facility with which that infectious disorder may be disseminated with the milk supply from a source provided by persons not suffering clinically from diphtheria, but, nevertheless, harbouring the bacillus of diphtheria within their throats. Incidentally, it furnishes a powerful argument for the routine domestic pasteurisation (or scalding) of the milk supply of the ordinary household as soon as it is received from the supplier.

S.M. is a dairyman trading in the Burwood-road, Enfield, and supplying milk in the suburbs of Burwood, Enfield, Ashfield,

Strathfield, and Concord. He milks 45 cows, and obtains 10 to 12 gallons of milk on Sundays from the Fresh Food and Ice Company, which he distributes along with his own milk. His dairy is, and has been, maintained in a cleanly state, and in past years the reports of myself and my inspecting staff upon his premises have been, on the whole, satisfactory. A.B. is a dairyman trading in Mina Rosastreet, Enfield, and supplying milk in Enfield and the adjoining suburbs. He milks 27 cows, and obtains 2 to 3 gallons of milk from the Fresh Food and Ice Company on Sundays. His dairy is cleanly kept, and in fair sanitary condition generally. Between February 17th and March 9th, 1908, 28 cases of diphtheria occurred among the customers of S.M.'s dairy, and between February 26th and March 5th, 5 cases of diphtheria occurred among the customers of A.B.'s dairy. The course of the two outbreaks (which it will appear later were closely connected) was briefly as follows:—On February 25th, the sanitary inspector of Burwood informed me by telephone that three cases of diphtheria had been notified among S.M.'s customers. The following day, the notifications reached my office, and I detailed the assistant medical officer of health (Dr. T. W. Sinclair) to visit the dairy, and examine the employees and family of the dairyman, with a view to ascertaining the condition of their health. Two persons, a milker named A.M., aged 21 years, and a little son of the dairyman (R.M., aged 4 years), were found to have slightly reddened throats, though neither of them were ill enough to remain indoors, and A.M. was actually at work. On being questioned, A.M. stated that he had had swollen glands in the neck and a slight sore throat on February 14th, but his indisposition had not been severe enough to interfere with his work or his appetite. He only came into the dairyman's employ on the morning of February 15th. Swabbings from the throats of A.M. and the child R.M. were taken, and submitted to the bacteriological laboratory of the State Department of Public Health for examination. They were both reported to contain Klebs-Löffler bacilli. The following day, February 27th, swabbings were taken from the throats of every person employed or residing on the dairy, and as a result, S.M. (the proprietor of the dairy), W.J.D. (milker), and H.B. (yard boy), Mrs. S.M., and Miss R.F. (sister of Mrs. S.M.) were all found to be harbouring Klebs-Löffler bacilli in their throats, though, apparently, in perfect health. By arrangement

with the dairyman, all these persons (seven in number) were immediately caused to leave the dairy premises (February 28th), and the business was carried on by W.M. (the brother of the proprietor) and W.D. (a milker), swabbings from whose throats had proved negative on examination for Klebs-Löffler bacilli. These two men were assisted by George P. (a milker). George P. had been employed by S.M. until February 22nd. He had then left his employment, and was employed at A.B.'s dairy from February 22nd to February 28th, and had returned to S.M.'s dairy on the later date to assist in carrying on the business during the absence of the proprietor.

On March 3rd, swabbings were again taken from the throats of all the persons employed on S.M.'s dairy, as well as from the throats of those persons who had been excluded therefrom on February 28th. All swabbings were negative, except that from George P.'s throat, which showed Klebs-Löffler bacilli. George P. was immediately excluded from the dairy.

On March 4th, swabbings were again taken from the throats of those excluded on February 28th. All were found negative, and the return to the dairy of Mr. S.M., Mrs. M., and W.J.D. was sanctioned.

On March 5th, a swabbing from the throat of a sister-in-law of the proprietor, who had taken the place of Miss R.F. on February 28th, to assist in the household, was found to contain Klebs-Löffler bacilli. She was excluded from the dairy on the same day.

Subsequently, swabbings from George P.'s throat showed the presence of Klebs-Löffler bacilli on March 12th, March 17th, and March 19th. He was not permitted to return to the dairy.

The attached tables show that diphtheria continued to attack customers of S.M.'s dairy from February 16th to February 28th. After that date there was a cessation of new cases till March 6th, at which date they began to occur again, and continued until March 9th.

The first case of diphtheria among the customers of A.B.'s dairy occurred on February 26th, and cases continued to occur among the customers of this dairy until March 5th.

On March 4th, A.B.'s dairy was visited, and swabbings taken from the throats of all the persons then employed or residing on the dairy, except two persons who were absent from the premises at the time, and from whose throats swabbings were subsequently taken

on March 6th. In all cases the swabbings proved to be negative on examination for Klebs-Löffler bacilli. George P. had left this dairy on February 28th. The room previously occupied by George P. was fumigated, and the floors washed, and the milkroom was cleansed and repainted internally.

The outbreak may be summarised in the following conclusions:—

1. Between January 1st and February 14th, 1908, in the municipalities of Ashfield, Enfield, Burwood, Concord, and Strathfield, with a combined population of, approximately, 36,000 persons, only 3 cases of diphtheria were notified.

2. Between February 14th and March 9th, 40 cases of diphtheria were notified in the same districts, of which 34 were among persons using the milk of two dairies, S.M.'s and A.B.'s. No other circumstances than that of a common milk supply connected the persons affected.

3. On February 15th, a man named A.M., who had on the previous day suffered slightly from sore throat, accompanied by swollen glands in the neck, was taken into S.M.'s employ to milk and distribute the milk.

4. On February 16th, two persons among S.M.'s customers sickened with diphtheria, and from that date until February 28th fresh cases of diphtheria occurred almost daily among the customers. On February 28th the outbreak ceased.

5. On February 26th, the milker above-named, A.M., and one other person on S.M.'s dairy were found to be harbouring Klebs-Löffler bacilli in their throats, and on February 27th five other persons residing on the same dairy premises were found to be harbouring Klebs-Löffler bacilli in their throats. None of these persons was appreciably indisposed, but a culture of the organisms from A.M.'s throat was reported from the laboratory to have proved virulent to guinea-pigs.

6. On February 22nd, George P., a milker employed by S.M., left the latter's employment, and went to work as a milker on A.B.'s dairy. He had been specially associated with A.M. while at the former dairy.

7. On February 26th, a case of diphtheria occurred among A.B.'s customers, and a total number of 5 cases occurred among the customers of this dairy between February 26th and March 5th.

8. On February 28th, George P. left A.B.'s dairy and returned to S.M.'s dairy in the same capacity of milker and milk distributor.

9. On March 3rd, George P. was found to be harbouring Klebs-Loeffler bacilli in his throat, and was excluded from S.M.'s dairy.

10. On March 5th, a fresh outbreak of diphtheria began among S.M.'s customers, and affected four persons.

11. A consideration of the circumstances set forth in this report leads inevitably to the conclusion that the man A.M., while harbouring the organisms of diphtheria in his throat, though not, apparently, ill, came to S.M.'s dairy, and infected the throats of most of the persons on that dairy, including George P. None of these persons became ill themselves, but the bacilli which they harboured in their throats were virulent, and getting into the milk supply, caused an outbreak of clinical diphtheria among the customers of the dairy. Subsequently, George P. went to A.B.'s dairy, among the customers of which, a small outbreak occurred, which ceased on his leaving that dairy. On the return of George P. to S.M.'s dairy, he relit the flame which had been extinguished by the removal from that dairy of the source of infection, and caused a small fresh outbreak among S.M.'s customers before he was also removed, owing to the prompt detection of the condition of his throat.

12. In none of the households affected was the domestic milk supply invariably scalded before consumption.

It may be added that both the dairymen gave great assistance to my officers and myself in the investigation of this outbreak, and readily agreed to, and carried into immediate effect, every suggestion made to them for checking the spread of infection. It is perfectly clear that neither could be regarded as being morally responsible in the slightest degree for the dissemination of infection among their customers.

TABLE I.

Showing ascertained Probable Dates of Attack among S. M.'s customers in the order of their occurrence.

Date.	No. of Cases.	Date.	No. of Cases.
Feb. 14	 1*	Feb. 27	 -
" 16	 2	" 28	 2
" 17	 2	Mar. 1	 -
" 18	 -	" 2	 -
" 19	 1	" 3	 -
" 20	 -	" 4	 -
" 21	 2	" 5	 -
" 22	 4	" 6	 1
" 23	 2	" 7	 1
" 24	 3	" 8	 1
" 25	 3	" 9	 1
" 26	 2		
* Employee A.M.		Total	.. 28

TABLE II.

Showing ascertained Probable Dates of Attack among A.B.'s Customers.

Date.	No. of Cases.
Feb. 26	 1
" 28	 1
" 29	 2
Mar. 5	 1

TABLE III.

Diphtheria among Consumers of S.M.'s Milk.

No.	Initials.	Sex.	Age yrs.	Notified.	Date of Onset.	Residence.
1	R.M.	M.	8	18/2/8	17/2/8	Burwood
2	D.M.	F.	11	22/2/8	21/2/8	"
3	R.B.	F.	16	24/2/8	22/2/8	"
4	H.H.	M.	13	22/2/8	19/2/8	Ashfield
5	T.R.	F.	13	25/2/8	22/2/8	"
6	R.O.B.	F.	19	25/2/8	23/2/8	"
7	A.C.	F.	27	26/2/8	22/2/8	Strathfield
8	C.F.	F.	30	26/2/8	24/2/8	Ashfield
9	S.F.N.	F.	50	25/2/8	17/2/8	Burwood
10	G.H.	M.	6	25/2/8	16/2/8	"
11	O.R.	M.	9	23/2/8	21/2/8	"
12	A.McH.	M.	17	25/2/8	22/2/8	"
13	A.D.K.	F.	6	25/2/8	24/2/8	"
14	R.H.W.	M.	18	27/2/8	26/2/8	"
15	C.H.	F.	36	26/2/8	23/2/8	Concord
16	E.G.	F.	47	27/2/8	25/2/8	Enfield
17	A.M.	M.	21	27/2/8	14/2/8	"
18	R.M.	M.	4	27/2/8	25/2/8	"
19	H.H.	M.	—	28/2/8	16/2/8	Burwood
20	A.D.W.	F.	22	29/2/8	26/2/8	Enfield
21	H.T.	F.	19	29/2/8	24/2/8	Burwood
22	N.M.	M.	4	3/3/8	25/2/8	"
23	M.R.	F.	8	7/3/8	28/2/8	"
24	T.B.	M.	8	8/3/8	28/2/8	Enfield
25	E.W.	F.	12	8/3/8	6/3/8	Burwood
26	F.M.S.	F.	20	9/3/8	8/3/8	"
27	W.F.	M.	7	11/3/8	7/3/8	"
28	J.W.	F.	10	11/3/8	9/3/8	Enfield

TABLE IV.

Diphtheria among Consumers of A.B.'s Milk.

No.	Initials.	Sex.	Age yrs.	Notified.	Date of Onset.	Residence.
1	J.J.F.	F.	8	28/2/8	26/2/8	Burwood
2	M.S.	F.	8	2/3/8	28/2/8	Strathfield
3	V.S.	M.	4	2/3/8	28/2/8	"
4	W.A.T.	M.	21	2/3/8	29/2/8	"
5	G.L.	F.	16	11/3/8	5/3/8	"

DIPHTHERIA IN WEST AUSTRALIA.

By H. Cumpston, M.D., Medical Officer to Central Board of Health, West Australia.

THE data adduced in this paper are of interest for two reasons: they have never been collected before, and because of the circumstances of the population concerned they allow of the exclusion of many of the factors which affect the epidemic history of such a disease as diphtheria.

In the first place there is exact record of the appearance of the disease in West Australia

The following is an extract from the *Enquirer and Commercial News*, December 14th, 1864 :—"Lately several persons have been attacked by a disease, insidious in its approach, and occasionally fatal in its results, and which apparently presents some novel features. The patient is first attacked by pain in the throat, accompanied by swelling, loss of appetite, and general debility. Eventually the stomach rejects all food, and the sufferer dies in possession of all his faculties—it would seem from utter exhaustion. Several families in the city have become mourners in consequence of this disease, which has hitherto attacked the young only. The first symptoms being those of an ordinary sore throat, are too apt to be neglected, and by the time medical advice is obtained the patient is too far gone to rally. The early approach of this disease cannot be too closely watched." And two later references :—January 13th, 1865 : "The throat complaint is becoming very prevalent." June 2nd, 1865 : "Another child has died from diphtheria." So that the end of 1864 saw the introduction of diphtheria into West Australia. A careful search into the papers for the preceding year did not reveal any reference to any outbreak of diphtheria on any of the vessels on their way out from England, so that the origin is rather obscure.

West Australia is distant from Colombo by a ten days' sea journey, and four to five days are necessary for the voyage from Perth, the capital of West Australia, and Adelaide, the nearest large centre of population in Australia. There is no overland communication yet. As the sea journey then would cover the incubation period of almost all the cases, the influence of human migration as a statistical factor becomes negligible. As an epidemiological factor, however, because of the importation of carrier cases, it is not negligible.

From the statistical point of view, then, there is in West Australia a white population of about 250,000, which forms, so to speak, a statistical "pure culture" in which the influence of various single factors can be studied free from complication factors to an extent hardly possible in most other countries. There has recently been a large apparent increase in the State, and this has given rise to a considerable feeling of alarm amongst the residents.

To explain the recent rise in the diphtheria curve, it will be necessary to consider the movements of the population as a whole. First, let us take the estimated population of

West Australia at the end of each year for the last 50 years.

The increase in population was the ordinary natural increase until 1894, when a sudden rise occurred ; this sharp rise went on until 1897, when for three years the population again became more or less steady. From 1894-1897 this sudden increase was due to the rush of people, chiefly young, strong males, with a small proportion of young females, to the Eastern Goldfields. The later rise has been due partly to the discovery of goldfields and partly to an energetic policy of importing agricultural settlers pursued by the authorities.

It would be surmised that what would happen would be of this kind : the young men, married and unmarried, would first come alone, and, later, after finding the conditions suitable, would send for their wives or marry girls from their native States.

In 1896 (i.e., two or three years after the sharp rise in total population commences) the proportion of females and the number of births both began to rise, and continue to rise steadily. From 1893-1896 there is a fairly strong fall in the proportion of females to 100 males.

If, now, the table of age groups (Table 4) be considered, we see that the greatest mortality from diphtheria is in the 5-10 age group.

TABLE 4.

	Under 1 year.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-25.	25-30.	Over 30.	Not stated.
Males	0.7	0.7	0.8	1.5	1.0	6.2	0.4	0.2	-	0.3	0.2	—
Females	1.0	1.3	1.0	1.9	2.3	6.4	1.1	0.3	0.2	-	0.4	1
(Average for 10 years, 1897-1906, of actual number of deaths at each age period specified.)												

The rise in mortality began at the end of 1902, i.e., five years after the commencement of the rise in the number of births. This fact, then, seems to be demonstrated, that the rise in mortality, which began in 1902, was due to the presence of a large susceptible population in the most suitable age period.

The typhoid fever mortality curve illustrates the influence of the same factors ; the sudden rise in 1894 continuing till 1899, was brought about by the aggregation over small areas of large numbers of men at susceptible ages, and it may be predicted that the curve for typhoid fever will show a fresh rise in correspondence with the new young population attaining the age groups most susceptible to typhoid fever, i.e., will commence about 1912.

In all probability there is at present no other factor appreciably affecting the epidemiology of diphtheria than the single one of the presence of a susceptible population, i.e., as far as this State is concerned.

All that has been considered thus far is the actual numbers of deaths for each year. On Table 1 will be seen the curve for the numbers of deaths from diphtheria per 100,000 of total population. This curve shows that prior to 1895 the curve was at its highest point, but with the advent of a large insusceptible population, the curve fell, showing in 1897-1898 a slight preliminary rise, but only beginning its regular rise in 1902, just as did the curve for actual numbers of deaths. The preliminary rise in 1897-1898 is also seen on Table 1. This is due doubtless to the fact that with the wives who began to arrive in 1897 came also the families who provided a sudden but temporary increase in susceptible population. The curve for the percentage of deaths from diphtheria to total deaths from all causes shows variations corresponding with those of the curve in Table 1.

The curve for diphtheria mortality per 100,000 shows no such startling rise as does the actual numbers of deaths curve between 1902-1907; so that there is not here any evidence of a marked epidemic from other causes, but merely the steady spread which might be expected by the operation of the single factor of the appearance of a large new susceptible group of children.

That this spread, however, is alarming enough, and that the *B. diphtheriæ* is taking full advantage of its opportunities, is seen by the number of notifications since 1902.

TABLE 5.

	Cases Notified.	No. per 100,000 of total living Population.	Number of deaths.	Case mortality.	Death rate per 100,000.
1902 ..	73	35.48	9	12.32	4.0
1903 ..	81	36.61	22	27.16	9.9
1904 ..	177	74.85	40	22.60	16.9
1905 ..	228	91.52	39	17.14	15.5
1906 ..	317	122.01	65	20.50	17.0
1907 ..	879	333.13	69	7.84	26.1

It should be explained that infectious diseases were first made compulsorily notifiable by the Health Act 1898, and then they were notifiable to the Local Boards of Health. In 1902 the Central Board was first created, and it was ordained that notifications should be sent on to the Central Board each month. This system took a little time to fully establish, so that the figures are not quite reliable for the

first year. This does not affect the fact that diphtheria is taking a prominent place in the State.

Case Mortality.—In Table 5 it is seen that the mortality varies from 27.16 per cent. to 7.8 per cent., but the possible error in the earlier years has been pointed out. A better basis of observation is a table of cases treated in all the Government hospitals of West Australia with the case mortality per cent. for 11 years, 1896-1906. The average for the 11 years is seen to be 10.67 per cent.

This may be supplemented by the Perth Hospital report for 1907, with a case mortality of 7.6 per cent. among 249 cases.

TABLE 6.
Diphtheria cases in Hospitals in West Australia.

	Cases Treated.	Deaths.	Case Mortality Per cent.
1896 ..	10	2	20
1897 ..	43	6	13.95
1898 ..	124	6	4.83
1899 ..	12	0	—
1900 ..	19	2	10.52
1901 ..	13	1	7.61
1902 ..	15	1	6.66
1903 ..	14	3	21.42
1904 ..	37	6	16.21
1905 ..	181	13	7.18
1906 ..	271	19	7.01
1907* ..	249	19	7.6

* Perth Public Hospital only.

The case mortality, then, may be taken provisionally as between 7 and 10 per cent. The errors of observation in a young State like West Australia becomes larger the earlier the years under consideration. The case mortality at the Metropolitan Asylum Boards Hospitals for the years 1895-1899 was 17 per cent., and for the whole of London for the same period, 17.2 per cent.—(Parkes and Kenwood, 2nd ed., page 259.)

Seasonal Prevalence.—From Table 7 it is seen that the greatest number of deaths takes place in June, and that the five months including winter, i.e., April, May, June, July, August, are the months of greatest prevalence. Table 8 of notifications shows that the notifications reach their maximum in May.

Age Distribution.—It is impossible to give the age incidence of the disease, as these figures were only first separately noted this year. Table 4, however, shows the age distribution of deaths from diphtheria in average numbers for the 10 years 1897-1906, i.e., the average at each age period for the whole 10 years. The greatest mortality is seen to be from 5 to 10. More girls than boys die at all ages.

"In England and Wales the mortality for both sexes has since 1891 reached its maxi-

mun at the age group 10-15 years."—(Shirley Murphy, *Lancet*, 8-6-07, "Age Incidence of Mortality from certain Diseases.")

Table 9 shows the distributions for the six years, 1902-1907, divided according to the metropolitan area and the rest of West Australia, and expressed as percentages of the whole. This table shows that the disease is chiefly metropolitan, with a slight tendency to spread to the country districts.

School Influence.—This was considered in the notifications for January and February, 1908. The schools opened on January 28th, but the notifications for each day of January and February arranged in two columns, "school ages" and "outside school ages," showed no increase after January 28th. Education has been compulsory in this State since 1871 to this extent, that 35 days' attendance had to be completed in each quarter. In 1899 the standard was extended, and whole time attendance was made obligatory. It is certain, as has frequently been shown by the investigation of localised outbreaks, that aggregation in schools plays a large part in the spread of diphtheria, but statistically this factor cannot be put in evidence. In none of the tables did any rise occur after 1899.

In all the above considerations the term "diphtheria" includes "croup."

Summary.—(1) The important factor at work producing an increase in diphtheria is the development of a susceptible population. (2) The case mortality is probably between 7-10 per cent. (3) The seasonal prevalence is most marked. (4) The greatest mortality is in the 5-10 age group. (5) It is to be expected that the curve for diphtheria will go on steadily rising for the next few years.

(Read before the West Australian Branch of the British Medical Association.)

A CURIOUS CASE OF URETHRAL OBSTRUCTION.

By H. Critchley Hinder, M.B., Ch.M., Sydney.

A FEW months ago I reported a case which was somewhat similar to the one whose history I am about to relate. It was a case in which the patient had suffered some months from early tuberculosis of the bladder, ending by a general improvement in health and healing of the bladder wall, but unfortunately during the process of cicatrisation some puckering had been occasioned at the orifice of the ureter. In consequence of this the patient

suffered from repeated attacks of renal colic, and the lower end of the ureter became dilated. This bulbous distension at the ureteral orifice was seen with the cystoscope, and the whole trouble easily and speedily relieved.

The case I have already referred to and the one I am about to mention are both excellent examples of the great value of the cystoscope in doubtful urinary conditions. It was not for want of advice from various reputable sources that the patients failed to obtain relief, but simply because the methods of examination were not of that exhaustive character which tends toward certainty in any diagnosis. It was not a matter of men but of means.

For the notes of this case I am indebted to my house surgeon, Dr. Mackenzie.

The patient was a sturdy healthy man of 33 years of age. He came to the hospital complaining of attacks of pain in the left side for the past 17 months. These attacks came on at varying intervals and were at times accompanied by diarrhoea. The pain was the chief characteristic feature of the attacks. The pain came on quite suddenly and bore no relation to the time of the day or the occupation in which he might have been engaged. It was very severe, often made him vomit, and appeared to be felt most intensely in the groin, extending from thence up into the renal region, and down to the left testicle, in fact he himself noticed the characteristic drawing up of the gland. The pain was paroxysmal in character with remissions, and gradually eased off after a few hours.

There was never any blood passed, but during the attack the urine was often very dirty immediately it was passed. He never had pain on micturition until the last attack, when there was a considerable amount, but he was not aware that he had passed any calculus. During the attacks there had been some frequency, but this symptom was not in marked evidence.

When he came to the hospital he had neither sign nor symptom. The case certainly looked like one of calculus in the ureter, and the last pain on micturition made it appear as if he had succeeded in passing it. He was carefully photographed twice with an absolutely negative result, so without further examination, as he felt quite well, he was about to be discharged, when he had one of his old attacks. He was taken to the theatre and examined with the cystoscope, when I found that though the right ureter

was spouting clear urine the left ureter was emitting nothing, while the ureter for about three-quarters of an inch above the orifice was distended and of a dull angry red colour. With my finger in the rectum I was just able to feel this swelling. The bladder was opened suprapubically; and the swollen end of the ureter in the relaxed bladder was by no means marked and could without previous information have been very easily overlooked. Bimanually, however, the swelling could be easily felt, and so tense and hard was it that I thought it was certainly a stone.



A. Dilated proximal end of left ureter.
B. Normal right ureter.

The ureter was slit up and, to my surprise, about half a dram of foul pus escaped, followed by a little dirty urine. A probe was passed along the ureter for some distance, but no obstruction could be felt. The flaps of the incised ureter were stitched back to the bladder wall, so as to keep the opening patent, and the bladder was closed except for a suprapubic drain. The patient made an uneventful recovery and left the hospital. About four months after he had another attack of renal colic, and promptly returned to the hospital. The following night he passed a tiny calculus about as large as a grain of wheat.

I certainly do not think that this illness bore any relation to that for which he submitted to operation. Previous to his operation the attacks of renal colic had been troubling him every few days, and following the operation there was a clear period of perfect health for four months.

It is hard to say why the orifice of the ureter became blocked, but it is very probable that the damage was done during the passage

of a sharp stone, and the resulting cicatrization caused a constriction at the ureteral orifice.

Finally a cystoscopic examination was made, and clear urine could be seen discharging freely from the orifices of both ureters.

The operation took place 15 months ago. I saw him the other day. He has had no further trouble.

THREE INTERESTING INTESTINAL CASES.

By E. H. Binney, M.B. et Ch.M. (Syd.), Honorary Surgeon Royal Alexandra Hospital for Children, Honorary Assistant Surgeon Sydney Hospital.

CASE I.—*An unusual case of Intussusception.*
—On December 3rd last I was called to see an infant aged 4 months that had been taken suddenly ill. The duration of the illness had been two hours, and the diagnosis was given as intussusception. About three hours after the onset of the attack the patient was anaesthetised, and on abdominal palpation a soft movable tumour was felt in the ileo-cæcal region. This decreased considerably in size under bimanual massage. It was obviously an ileo-cæcal intussusception, and felt as if one could unfold the colon from around its intussusception. After the manipulation a small mass only remained, which felt much harder. A rectal examination was made and some traces of recent blood followed withdrawal of the finger. This appeared to be a case eminently suited to cure by injection, so fluid was allowed to flow in gently by means of a Higginson's syringe. There was no resistance to the inflow, so after a pint had been given the child's abdomen was again palpated. No trace of any lump was to be found, so the child was put back to bed. She slept very well, took the mother's breast on waking, with only slight sickness until 12 hours after the supposed reduction, when the child began to vomit and nothing further passed by the bowel. Irrigation was ordered, as some colitis often co-exists with this condition, but the nurse stated that the child could not retain it; later, however, the child took about 20 ounces by a funnel and catheter. This was passed after a short time, together with flatus and altered blood. It seemed as if the obstruction had been relieved, so it was decided to wait and watch the child. The patient passed a restless night, and vomiting came on again, so next morning, about 30 hours after the supposed reduction, she was again anaesthetised, and on palpation a small movable lump about the

size of a small marble could be felt in the left iliac region; no tumour could be felt elsewhere, and the ileo-cæcal area and the whole region of the colon were quite soft and palpable. The presence of the lump and the fact that intestinal obstruction of some kind had existed for some time seemed to indicate the necessity for abdominal section. This was done immediately, and the left iliac region explored. The lump was found to be the tip of an intussusception, was easily moved upwards, then along the transverse and down the descending colon, where the condition was found to be one of ordinary ileo-colic intussusception, which was easily reduced in the ordinary way. The child made a complete recovery.

Remarks.—This case presents the following points of interest:—1. The apparent cure of the condition as indicated by the passage of flatus and motion after. 2. The recurrence of symptoms after this not at all classical of intussusception, but evidently caused by this condition, and the unusual sign of a palpable marble-like swelling indicating the tip of the intussusception. 3. The uncertainty of cure by injection in even an early case, and the need for close constant observation afterwards.

CASE II.—Radical cure of artificial anus by resection of the bowel and circular end-to-end anastomosis.—This is a sequel to a case recently recorded by me. The condition was one of artificial anus remaining after resection of part of the ileum for gangrene, which was partly cured by an ileo-sigmoidostomy performed to relieve an acute obstruction which supervened. A fistula remained, and a plastic operation had failed to cure it. The site was in the middle line, a portion of the ileum presented in the wound, discharging faeces from its proximal end, its distal end leading down to the ileo-cæcal valve. The child was in very good condition and passed a daily motion by the anus, but a certain proportion of excrement came by the opening. This was less in the recumbent posture, but the leakage was difficult to control when about. It was plain something should be done, and the parents were warned that it might have serious consequences. They, however, elected to allow the child the chance. Remembering the condition originally met with in which the divided ends of the bowel were surrounded by much peritonitis and effused fluid, it was likely that considerable adhesions would exist around the parts. The former median section wound showed a dense cicatrix about three inches long, in the middle of which were the

intestinal openings of everted intestinal mucous membrane with a considerable space between them. The skin around was eczematous, and the mucous membrane bled readily on examination. The first step of the operation consisted in plugging both ends of the intestinal tube with strips of iodoform gauze to prevent escape of faeces; next the site of the operation was disinfected as well as possible—a process which irritated the already sensitive part. A small incision was made along the course of the original scar just above the opening, keeping close to the mucous membrane. It was necessary to be very cautious here, feeling the way with a probe until a small puncture was made and in it some omentum presented itself. The probe could be freely passed downwards along the angles on each side between the abdominal parietics and adherent intestine. A narrow strip of gauze was then passed so as to embrace the intestine partially. Another small incision was then made through the lower part of the scar, just below the false anus, and the peritoneum was opened. Gauze strips were then similarly passed as above and were made to meet the others. This occupied considerable time, but it served to demonstrate that no gross adhesions existed in this position. Working next from the lower peritoneal opening with curved blunt scissors over this collar of gauze, the intervening tissues could be readily divided close to the margin of the mucous membrane without fear of wounding any subjacent structures. The two ends of divided intestine forming the false anus were easily drawn into the wound; only a small opening into the peritoneal cavity was made, and the collar of gauze, together with intestine itself, formed an effective plug to shut off the cavity from any accidental fouling. This method seemed much safer than passing the finger as a director, as it resulted in a smaller opening and protected the other parts of intestine from contamination; and it is to be remembered that the area around was anything but aseptic. The rest of the operation consisted in clamping the intestine above and below the opening, dividing it slightly obliquely with a knife and doing an end-to-end entero-enterostomy by means of a double row of sutures, the inner continuous one of chromic gut embracing all coats, and the outer sero-serous of interrupted Lembert sutures of ordinary catgut. No mechanical device was used. After removing the abdominal protective packing two strips of gauze were applied tightly to each side of the newly.

made junction and the ends brought out of the wound. Two mattress sutures of catgut were used for the peritoneum above and below, and the ordinary superficial sutures in the parietes.

The child stood the operation very well. My anæsthetist, Dr. Welch, told me that she only varied in condition during manipulation of the intestines, and picked up at once after they had been dropped back into the cavity.

The after treatment and history in this case was as follows:—The pulse remained quick for three days, and vomiting was constant, without any pain; in fact, the child slept in her intervals of vomiting. No morphia was given, but was ordered in the event of pain. Fluid was allowed freely by the mouth, but this was mostly vomited. No passage by the bowel took place for three days. On the evening of the third day the child complained of feeling hungry, and asked for bread and butter; this was retained, and followed by a small quantity of beef tea. The same night, after a slight attack of colic, the bowels moved normally, vomiting ceased, and the patient continued to improve. The gauze wicks were removed on the fourth day, and the abdomen allowed to close. Dermatitis rapidly disappeared, and the child left the hospital well 31 days after the operation. She has since presented herself, looking well, having gained flesh rapidly.

Remarks.—The points of interest in this case are:—(1) The freedom of the ends of intestine from adhesion, considering the amount of peritonitis that was present, the contraction of which had subsequently caused complications. (2) The favourable issue of this case, and the comparative ease of performing the operation with a minimum of shock, makes one less hesitant in leaving an artificial anus for a time after an acute abdominal obstruction. In certain cases lately the use of Paul's tubes followed later by entero-enterostomy has had much better results than resection and anastomosis in an acute condition.

CASE III.—A Case of Intussusception of the Vermiform Appendix, Resection of the Ileo-Cæcal Area, and Intestinal Anastomosis.—This case was kindly sent to me by Dr. A. E. Gibbes, of Lithgow, to whom I am indebted for the following notes. He wrote:—"About 14 days ago I first saw the child, and only considered it slight colic; no temperature or abdominal tenderness; it went on fairly well

till about a week ago, and they sent for me then. Child in severe spasmodic pain all night and morning, vomiting occasionally, and on one occasion passed blood and mucus. I could define a sausage-shaped tumour running across the abdomen. No great tenderness, no collapse, no increased temperature. I had the child removed to the hospital and saw it with the other two officers. We all clearly made out the tumour before the anæsthetic; as soon as it was under chloroform the tumour had disappeared. While in the hospital it had the bowels thoroughly opened and for perhaps a day the child was easier; then the pain began again, and on Wednesday last was very bad, and I could again define the rounded tumour across the abdomen and down the cæcum. After the bowels were open, the condition improved a bit, but the pain is persisting, although to-day I can palpate the abdomen freely without any distress to the child or signs of a colonic tumour." Dr. Gibbes adds, further, in his letter: "The child is in no immediate danger, but I would be obliged if you could have her admitted to hospital for observation, otherwise I do not think you will get a good idea of the condition, which is peculiar."

The patient, a rosy little country girl of two years, was admitted into the Royal Alexandra Hospital for Children, 23-11-07, and kept under observation. The symptoms, as noted in the doctor's letter reappeared, and it was decided to explore the abdomen.

Operation.—On this occasion I was glad to have the valuable help of Dr. Clubbe. Under the anæsthetic a tumour, running along the transverse colon, could be palpated, as before. A median abdominal section was performed from midway between the Xiphisternum and umbilicus to midway between the umbilicus and pubes. The umbilicus was temporarily obliterated by incision and suture and the skin drawn aside to avoid incising the structure. On opening the peritoneum the mass previously felt was found in the transverse colon, and proved to be an intussusception, which was readily reduced along the hepatic flexure and ascending colon until the cæcum was reached; here the ileo-cæcum was delivered into the wound, and the following condition presented itself. The walls of the cæcum were swollen and cedematous with thinning of the serous coat; in fact, efforts at reduction had caused splitting in parts; the ileum was slightly thickened in its walls, and its lumen evidently increased by previous

distension above the obstruction. On palpating the cæcum, it could be felt to contain a cone-shaped projection, fixed at its base, and corresponding to this, on the outside, was a dimpling. The peritoneal coats about this situation were less lustrous than usual, with signs of past adhesions having occurred in parts. Being unable to reduce this mass by pressure, an attempt was made to open up the dimple produced on the outside by blunt separation of the contiguous surfaces; here it was found that a small stalk came from its apex, resembling in appearance the free end of the vermiform appendix, somewhat atrophied, showing remains of the mesentery attached. No signs of any vermiform appendix could be seen elsewhere. As no further reduction of the mass could be effected, it was decided to resect the ileo-cæcal region, which was done between two pairs of Cawardine's clamps, then an end-to-end anastomosis was effected by direct suture with continuous chromic gut internal row embracing all coats, and an outer sero-serous interrupted layer of Lembert sutures of ordinary catgut. It was fortunate here that through the obstruction the ileum had been dilated and could easily be approximated to the cæcal portion by the circular method. The mesenteric cut borders were approximated; no drain was used, and the abdominal wound was closed in layers.

After History.—The child made an uneventful recovery; the bowels moved naturally 24 hours after the operation, an event neither expected nor desired. The motion, however, was natural and the peristalsis evidently disturbed nothing. The child was well and taking ordinary food in 14 days, and shortly after left for her home in the country.

Description of the Excised Portion.—The specimen, as you see, contains the lower end of the cæcum and termination of the ileum; the ileo-cæcal valve is patent, and the lumen of the ileum above it somewhat increased; this allowed a circular enterorrhaphy to be done with comparative ease. From the dimpling in the lower part of the cæcum a small stalk can be seen which is the lower part of the appendix, having the remains of the mesentery attached. On opening the cæcum there is a pyramidal mass coming from its most dependent part, the apex of which is discoloured and its mucous membrane eroded; this accounted for the mucus and blood in the

dejecta at times. This is undoubtedly the inverted appendix, which had at times determined an intussusception of the colon, giving rise to partial obstruction, but owing to the patency of the ileo-cæcal valve a certain amount of flatus and faecal material was allowed to pass; the long-continued pressure had caused agglutination of its coats so that the patency of the canal could not be properly demonstrated.

Remarks.—This is a rare condition, but it is a clinical entity. In Kelly and Hurdon's recent work on the vermiform appendix, a sub-section is devoted to the subject, in which 19 cases are quoted. The exact diagnosis is impossible; it would seem to be the same as that of chronic intussusception. The general method of treatment seems to be excision of the intussuscepted portion by an elliptical incision around the base of the appendix, through the cæcal wall and subsequent suture of the opening. This was not done, as the exact condition of the parts was not clear until the severed portion had been opened up,

(Read before the New South Wales Branch of the British Medical Association.)

SARCOMATOUS TUMOUR OF ILEUM, REMOVED BY RESECTION OF BOWEL AND END-TO-END ANASTOMOSIS BY SUTURE—RECOVERY

By Ralph Worrall, M.D., M.Ch., Gynaecologist to the Sydney Hospital

J. McK., 43, single, well nourished, complaining of pain in left iliac fossa for six months, was admitted into the gynaecological ward of the Sydney Hospital on March 17th, 1908. Nephrorrhaphy had been done in another hospital four years before for movable left kidney. I had seen her outside, and finding a tumour in Douglass' pouch of the size and consistency of the kidney, which could be pushed out of the pelvis into the left kidney pouch, while the uterine appendages were normal, concluded the nephrorrhaphy had failed and that the kidney had fallen into the true pelvis. Accordingly I sent her into the general surgical ward, where the old incision in the loin was reopened by one of my colleagues, who found the kidney securely fastened in normal position. The patient was then transferred to the gynaecological ward for the removal of a supposed tumour of genital organs.

Median abdominal section was done, the incision being made rather further from the pubis than usual. The tumour was found to be a very vascular growth, about the size of a pear, growing from the ileum, about its middle, into the mesentery. There were no enlarged glands. The tumour, with about eight inches of ileum and corresponding portion of mesentery, was excised between clamps, and the resected ends brought together by continuous through-and-through suture of chromic catgut, with an external sero-muscular suture of the same, also continuous. Three guide sutures were first in-

every morning. The bowels moved spontaneously on third day.

Dr. Sydney Jamieson, pathologist to the Sydney Hospital, reports the growth to be "a highly cellular fibroma suggesting sarcoma."

Sarcomatous tumours of the small intestine is rare; a completed list of all recorded cases given by Mr. Moynihan number just 40.

This, with the other cases shown at this meeting, go to prove that mechanical appliances are unnecessary in effecting end-to-end union of small intestine.

(Read before the New South Wales Branch of the British Medical Association.)



Sarcoma of Ileum, removed by resection with end-to-end union by suture. -- Recovery
On the right the bowel has shrunk in the preserving fluid, and does not show well.

roduced after the manner recommended in Binnie's Surgery. The bowel was cleansed with saline solution and returned, and a small rubber drainage tube passed from upper end of parietal wound to neighbourhood of the resection as a precaution in case of a leakage; none occurred, however. The patient made a very easy recovery. Pulse 88 after operation, and never again reached that figure. Highest temperature, 100°. The diet was water, broth, whey and tea for a week, after which it was gradually increased. Nutrient enemata were given while the patient was on spare diet, with cleansing enema of boric acid

THE TREATMENT OF INFLAMMATION BY PASSIVE CONGESTION.

By C. MacLaurin, M.B., C.M. (Edin.), Hon. Surgeon to Royal Prince Alfred Hospital and the Royal Hospital for Women, Sydney.

So many correspondents have written to me asking for details of the Bier's treatment mentioned in a recent article in the *Gazette* that as there is extremely little written in English about the subject, I venture to send a brief account of its practice.

Passive congestion is suitable for all inflammations, whether acute or chronic, and

however caused, provided only that it is in a situation where the method can be used. Typical situations are in the limbs and breast.

The best means of securing congestion is by a rubber bandage about two and a half inches wide, applied lightly around the limb well above the inflamed part. The object is to secure slowing of the venous return current without interfering with the arterial inrush, and the test is that the limb is to show a slight reddening, and in parts is slightly blueish; at the end of 12 hours it is to be slightly swollen; there is to be no definite blueness or pain.

In an acute inflammation the bandage should be applied for 22 hours at first, leaving it off the subsequent two hours, during which the limb should be elevated. Treatment should be commenced in the early morning, and the patient must not go to sleep till it is seen how the limb is going to behave; there should be no pain or inconvenience whatever, as I have said; if such should occur, the bandage is too tight. On the second day the duration is rather less, and the bandage is applied for a shorter and shorter time daily till the inflammation is entirely well; it is best to continue its use for two or three days subsequently, else the symptoms are apt to flare up again.

In chronic inflammations we generally begin with 10 hours, and lengthen the time by two hours daily, till it is on for 22 hours. In the interval gentle massage is given, except in the case of tubercular disease.

In the breast, the easiest way is by means of a cupping glass. I understand that Bier treats disease of the mastoid cells by a light bandage round the neck.

As for the results they are undoubtedly very good in many cases, and where it fails I am inclined to blame the technique rather than the method. There is no doubt that much depends on getting the bandage at the right tension; it should be so light as hardly to be felt. Bier is strongly of the opinion that the method is not one for the general practitioner, and I am inclined to believe that it will not be found of very great service outside a hospital, as it requires constant attention and observation.

I have tried it in acute dermatitis, gonorrhoeal rheumatism, whitlow, tubercular joints, chronic synovitis, and several other similar processes. The gonorrhoeal rheumatism was rapidly improved; indeed, I have never seen any other treatment have so quick a result. As for the tubercular joints, I have imagined

they were improved, though slowly. The acute inflammations were undoubtedly greatly relieved, both pain and fever immediately improving.

We propose to use it in fractures, together with massage, when suitable cases present themselves.

CALMETTE'S OPHTHALMIC REACTION

By C. Reissmann, M.A., M.D. (Cantab.), B.Sc.,
M.R.C.P. (Lond.), Adelaide, S.A.

CALMETTE'S ophthalmic-reaction has been described in an editorial article which appeared in the March issue of this journal.

There is as yet no unanimity of opinion regarding the value of this reaction. Some credit it with infallibility, while others think it useless. The record of individual experiences with the test is therefore still needed. If the results obtained by different observers are to be compared it is necessary that each should state whose preparation of vaccine was used. There is upon the market at least one preparation (Hoechst) which, nominally of the usual strength, has proved in practice to be so far stronger than most preparations that it fails to select tubercular patients and causes a reaction in almost every individual, whether healthy or tubercular.

I have used a vaccine prepared by myself by precipitation and containing 1 per cent. tuberculin in 3 per cent. boric acid. My results are as follow:—

	No. of Cases.	Pos.	Neg
Pulmonary tuberculosis	75	74	1
Acute pleurisy (family history of tuberculosis)	2	2	0
Traumatic pleurisy	1	0	1
Hæmoptysis	3	1	2
Hæmoptysis (? Hydatid)	1	0	1
Apparently healthy individual ..	7	1	6
Doubtful phthisis with strong family history	4	3	1
Doubtful early phthisis, no history ..	2	0	2
Asthma	1	0	1
Chronic pneumonia	1	0	1
Caries of spine	1	1	0
Cancer of rectum	3	0	3
Cancer of pylorus	2	0	2
Diabetes	1	0	1
Granular pharyngitis	1	0	1
Tonsillitis	1	0	1
Mitral stenosis	1	0	1
Cold abscess	1	1	0
Bronchitis	1	0	1
Abscess of lung	1	0	1

All the tubercular patients, with one exception, gave a positive reaction; one of them who had failed to react with one drop of $\frac{1}{2}$ per cent. solution reacted with

a drop of 1 per cent. solution, which was the strength usually employed. The reaction was not caused merely by a condition of ill-health unless the patient was tubercular, because none of the cancer patients reacted, although some of these were extremely ill, and one had intestinal obstruction. Three non-tubercular patients reacted slightly in 24 hours. It is important to distinguish these cases.

I have sometimes found it difficult to decide whether a very mild reaction is to be regarded as positive or negative.

In using the preparation of tuberculin prepared by myself I have found it necessary to take the following precautions:—Not more than one small drop of the vaccine must be used, and the reaction is not to be considered positive unless it begins within seven hours. A slight redness of the conjunctiva or caruncle appearing only in 24 hours does not constitute a positive reaction. The vaccine must not be used if the patient has had severe or recent inflammation of the eye,

REVIEW AND NOTICES OF BOOKS.

MEDICAL LABORATORY METHODS AND TESTS. By Herbert French, M.A., M.D. (Oxon.), F.R.C.P. Crown 8vo; pp. viii+168, with 59 drawings and two coloured plates. Second edition. London: Baillière, Tindall & Cox. 1908. Price 5s.

This small handbook of the commoner laboratory methods used in medicine should prove useful to the student and general practitioner. The accounts of the better-known methods are good, but those of the newer are scanty, though perhaps as full as one could expect in a book of this size. The diagrams and plates are excellently drawn and produced, but, unfortunately, the magnification is never stated. The index is extensive, and the paper, printing and binding very good.

LABORATORY STUDIES IN TROPICAL MEDICINE. By C. W. Daniels, M.B., M.R.C.S., Director of the London School of Tropical Medicine, and A. T. Stanton, M.D., Demonstrator, London School of Tropical Medicine. Second edition. Octavo. Pp. xiv+491, with four coloured plates and about 160 charts, diagrams and illustrations. London: John Bale, Sons & Danielsson. 1907. Price 16s.

This excellent account of the application of simple, and sometimes of complex, laboratory methods to the practice of medicine is intended for the lonely worker in his private laboratory. In addition to the subjects usually treated in such books—i.e., hæmatology (which is exhaustively considered), bacteriology, examination of urine and of fæces—we have very elaborate accounts of such insects as aid in the dissemination of tropical diseases: lice, fleas, bed bugs, their habits and the methods of coping with them are all described, while the account of mosquitoes extends to some 80 pages, and includes directions for classifying them, for dissecting them, for breeding them in captivity, and for demonstrating in them the development of various parasites. The article on laboratory equipment contains descriptions of all sorts of ingenious contrivances by which the

worker in distant lands may overcome the disabilities of his isolation and lack of ordinary laboratory supplies. The diagrams, pictures and coloured plates are very good though, as usual, the magnification is not stated. The index, paper, printing and general production are all good. The work should become indispensable to the practical student of tropical disease.

THE TREATMENT OF FRACTURES. Sixth edition. By Chas. L. Scudder, M.D. Melbourne: Jas. Little, Philadelphia and London: W. B. Saunders Co. 1907. Price, 24s.

In this edition Scudder has paid especial attention to fractures of the skull and to the treatment of some unreduced dislocations and ununited fractures. Particular stress is laid on the necessity for frequent inspection of a fracture—a very important point indeed. The illustrations are excellent, and many additions have been made. These certainly are of immense value in bringing about a ready conception of the nature of the fracture and the author's ideas as to the method of treatment to be adopted. The descriptive matter is concise, and in most instances sufficiently full to satisfy the practical practitioner. It is a deservedly popular work.

THE CARE AND FEEDING OF CHILDREN: A CATECHISM FOR THE USE OF MOTHERS AND CHILDREN'S NURSES. By L. Emmett Holt, M.D., LL.D. New York and London: D. Appleton & Co. Sydney: Angus & Robertson. Price, 2s 6d.

Anything from the pen of Emmett Holt about children is worth reading, and this book is characterised by the same thoroughness and good sense that is a feature of his other writings. The book is written for mothers and children's nurses, and is in the form of a catechism. In it the mother is told pretty well all she should know, and what is equally important, she is not overloaded with a lot of useless and incomprehensible medical matter. There is a difference of opinion as to the value of medical writings for the lay mind, but a book of this kind should be helpful in the forming of an intelligent popular conception of the treatment of babies. About that the only trouble is there are some points on which the medical mind is not at rest and which are still the sport of medical controversy. For instance, it is a question whether the mother should be harassed by all the details that are necessary in feeding by accurate percentages of milk ingredients. Budin and the French, when bottle feeding is necessary, believe in undiluted cow's milk for infants; Baginski and the Dutch find buttermilk an excellent food for young children; in the East the young are fed bird-wise on chewed rice; and the public and many reliable practitioners have a predilection for preserved and patent foods of various kinds. And, really, when you reflect, it is remarkable that of all animal kind the only one that is not given credit for some sort of adaptability to its surroundings is the human baby. However, there is more than enough of positive value in the book to make it useful to those it is intended for.

DISEASES OF CHILDREN, FOR NURSES. By Robert S. McCombs, M.D. Philadelphia and London: W. B. Saunders. Melbourne: J. Little, 430 Bourke-street. Price, 10s.

If this book is a sample of what the American nurse reads, she must be in a fair way to become a doctor. It is really a text-book on the diseases of children slightly altered to suit nurses. There is no objection to nurses reading it, but we think they can become competent on something simpler.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH JULY, 1908.

HOSPITAL REFORM.

A RECENT attempt on the part of a well-to-do patient to gain admission to a Sydney metropolitan hospital by dressing in old clothes and giving her address in one of the poorer districts of Sydney has drawn the attention of the lay press to the fact that the public hospitals are abused to a greater or less extent, both in the indoor and outdoor departments. This has been well known to the medical profession for many years, and Sydney is not alone in this abuse. In England a Hospitals Conference has been established and has already held meetings during the last two years, at which many matters of vital importance in hospital administration have been discussed.

While we all admit that a public hospital—that is, one which is supported by the voluntary contributions of the charitable public, assisted perhaps by Government grants—is intended for the treatment of the sick poor, the question as to whom we are to regard as legitimately falling under this designation is much debated. In a general way, we should say that the “sick poor” consist of that class of persons who are unable to pay the fees of doctors for private medical or surgical treatment, and whose surroundings are such that skilled nursing and attention in serious illness cannot be obtained. And there can be no question that the original idea of a public hospital was a place in which this class of patient should be entitled to receive free treatment.

We think there is also no room for doubt that a very great deal of the abuse of the

public hospitals has arisen from the practice of seeking payments from patients. They are asked or expected to contribute a certain amount per week, varying according to their circumstances, the idea being that those who can afford to do so should pay something towards their maintenance. These payments by the patients amount to a goodly sum each year; but we believe that it is the general opinion in the medical profession that this system is bad, and that under no circumstances whatever should money be *asked* from patients. If they are able to offer a small sum or a voluntary contribution to the funds of the hospital, well and good, but this must be of the nature of a free gift, and not reckoned in any way a payment for services secured in the hospital. Until this reform is carried out thoroughly and effectively we shall not escape from hospital abuse, and the profession will not cease to be imposed upon by well-to-do patients. The large number of medical benefit societies and lodges provide medical attendance and medicine and sick pay for their members, and no member of these societies should ever be admitted to either the indoor or outdoor departments of a public hospital, unless it be in consequence of accident or unless he produce a letter from his lodge doctor showing that he cannot be satisfactorily treated in his own home or in private hospital.

As a further safeguard against imposition upon the charitable public, every person admitted to a public hospital should be compelled to furnish some proof that he or she is not able to pay for private medical attendance. Such proof might be in the form of a sworn declaration before a justice of the peace, and if such declaration were found to be false, then criminal proceedings for perjury should be taken by the hospital authorities. This provision, of course, could not be enforced in the case of a person overtaken by sudden

illness or accident away from his own home; but if such a patient were found to be unsuitable for hospital treatment from a financial point of view he should be transferred at the earliest possible moment to the care of his own doctor at home.

The public hospitals are not supported by the Government or by the charitable public for the purpose of providing medical and surgical treatment for persons who can afford to pay for private treatment. The idea which seems to prevail in some of the States that a public hospital should be conducted like a large benefit club—free to all and sundry who contribute a small sum weekly, no matter what their financial position may be, and where salaried resident medical officers should be called upon or allowed to carry on a private practice—is one entirely foreign to the true conception of a hospital, and should be vigorously combated by the medical profession.

We repeat that no satisfactory hospital reform will be accomplished until the system of weekly payments by patients is abolished, and treatment both in the outdoor and indoor departments be *absolutely free*, and until stringent methods are adopted to prevent patients who can afford to pay for private treatment being admitted to the hospitals. We believe, further, that there would be a more ready response to the appeal of hospital committees for funds if the charitably-disposed givers were quite sure that their money would not be expended in providing treatment for patients better able to pay for it than themselves.

EXPERT MEDICAL EVIDENCE.

Two cases which have recently been before the Criminal Court in Sydney have again

emphasised very strongly the extremely unsatisfactory method at present adopted for placing before the jury the expert medical evidence. The wonder is that such a system should still be adopted, and no wonder that the Judges warn the juries against trusting expert witnesses on the ground that they have a bias to the side which calls them.

In one case a young man was placed on trial for the murder of a young girl near Maitland. The defence raised on behalf of the prisoner was insanity, and a considerable amount of circumstantial evidence, as well as expert medical evidence, was given in support of this defence. The jury, evidently swayed to some extent by this evidence, returned a verdict of guilty, but recommended the prisoner to mercy on the ground of previous mental weakness. On appeal to the Full Court the conviction was sustained. No impartial person on reading this case could, we think, come to any other opinion than that the result was extremely unsatisfactory, and this result, we think, is mainly due to the defect in the expert medical evidence. In so serious a matter as a trial for murder, in which the question of the prisoner's sanity is prominently raised, we submit that it is the duty of the Court to insist upon a full and impartial report on the question of the patient's mental state drawn up by a committee of experts, and until such a course is adopted we cannot blame Judge or jury if they practically ignore the whole of the medical evidence. If such a course had been adopted in this case there would have been no such an exhibition of conflicting medical opinions in the witness-box, and the jury would have had reliable, unbiassed medical expert opinion to guide them to a correct verdict. In that case, as the jury were evidently disposed to attach some weight to the evidence adduced in favour of the defence of insanity, they would have been influenced to

a much greater extent in practically acquitting the prisoner on the ground of insanity, or of finding him guilty without any recommendation to mercy on the score of mental weakness.

In a paper published in a recent issue of the *Boston Medical and Surgical Journal* on the "Problem of Expert Testimony," the writer, Dr. ANTHONY, of Haverhill, Mass., states his belief that if physicians called to examine a case insist upon their right to consult freely and openly about the case, as they would were there no legal complications involved, the ends of justice would ultimately be better subserved than by the present partisan attitude which physicians called either for the defence or for the prosecution are forced to assume. If this system were adopted by the leading expert witnesses there would be much less contradictory evidence and a fairer presentation of the exact condition of the patient under consideration. The lawyers would be powerless to object, and the dignity of the medical profession would be maintained.

In the second case, in which a woman was placed on trial on a charge of murdering a man by poisoning him with arsenic, the medical witnesses called by the Crown in support of the charge were subjected not only to a vigorous cross-examination, but were maligned and abused by the prisoner's counsel, presumably under cover of the privilege of the Court, in a way hardly consistent with the attitude which a member of a learned profession should adopt towards the members of any other profession. We are not disputing the correctness of the verdict of the jury; but we think that in this case, as well as in very similar cases, the whole of the expert testimony should be carefully considered and placed before the Court by a committee of experts.

In carrying out such a method, the committee of experts should not be appointed solely by the Crown, but should be composed

of an equal number of experts selected by both sides, and the juries would then not be called upon to decide between opposing opinions on medical questions expressed in the witness-box. We would earnestly commend the adoption of this or some similar scheme to the consideration of the authorities in this State.

THE MONTH.

The Care of Consumptives in Victoria.

At the suggestion of the Collingwood Council a conference was recently held in the Melbourne Town Hall of delegates from the metropolitan corporations to consider the question of the care of consumptive patients. Councillor Bain, of Collingwood, moved a resolution—"That in the opinion of this conference assembled from the Melbourne and metropolitan municipalities it is necessary that united action be taken to deal with the scourge of tuberculosis, and that we proceed to discuss the question and to take the best means to act accordingly." After considerable discussion this motion was carried, and it was further resolved that there should be another meeting after consultation with municipal health officers. Dr. Norris, chairman of the Board of Health, by special request, made some remarks on the problem before them. Year by year, he said, there were in the metropolitan area 2500 consumptive patients, 500 or so of whom required for their own and for the public well-being some public assistance. Adequate provision had to be made for cases that were considered to be in a remedial state, and especially provision for those who were incurable. Accommodation for the remedial cases was what was called a sanatorium. The other cases were not in any way suitable for a sanatorium, but only for what should be called an invalid home. A sanatorium should be where it would be of most benefit for the patients. As to an invalid home, it should not be planted anywhere without the consent of the district and the Governor-in-Council. The death-rate of consumptives in the metropolis was about 600 a year, so it was fair to say that there were 500 dying patients needing special accommodation, and that would mean 250 beds for patients who might be expected to die within six months of their admission. At present Sydney provided 300 beds for such

sufferers. It was recognised as unfair to enforce notification of cases of the malady unless accommodation was provided for those disadvantaged by the notification. So far they had by way of sanatorium accommodation 80 beds in one place and 50 in another, whilst an additional 50 or 60 beds would be ready within three months; so there was no need to worry over that aspect of the question at present. As to the 500 advanced consumptives, there were three ways of acting—(1) making them stop at home, (2) providing invalid homes, and (3) making use of wards in general hospitals that had accommodation to spare. It would rest with the municipal councils of Melbourne to organise methods of disinfection in local cases, and to do the disinfection themselves. There should be established in each municipal district a consumptives' dispensary, and all cases should be followed up.

The Insanitary Condition of the Sydney Post Office.

A Royal Commission has been appointed to inquire into the general condition of the postal service in the Commonwealth, and we hope that one of the matters to be investigated will be the improvement in the sanitary condition of the Sydney General Post Office. Last year we drew attention to the extremely unhealthy conditions under which those engaged in the parcel post department were obliged to work. The room is underground, with absolutely no ventilation, and artificial light has to be used constantly. The atmosphere is saturated with dust, the apartment is cold and dismal in the winter time, and in the summer time the heat is stifling. It is monstrous that in these days of sanitary progress the Government should compel men to work all day long under such conditions. We note that the conditions remain unchanged, and it is to be hoped that the Royal Commission will take this matter into consideration. It has been suggested that the whole parcel post department should be removed to a new building near the railway station. If that be done we hope that no other department of the postal service will be placed in the rooms at present occupied by the parcel post until some radical alteration in its lighting and ventilation have been effected.

The Rights of the Prescription.

The question of the ownership of the prescription given by a medical man to his patient has often been the subject of differ-

ences of opinion. There are other questions involved which have been recently fully discussed by the American Pharmaceutical Association, and this body has recently adopted a declaration as follows, which we take from the *New York Medical Record*:—

1. "The prescription should be a signed and dated order from the physician to the pharmacist to prepare and deliver certain medicine, etc., to the patient. The prescription should bear the *full name* of the prescriber either printed or written, and should specify the name (and age, if a child) of the patient. In the case of a prescription telephoned to a pharmacist the physician should subsequently send the prescription written in proper form to the pharmacist, so as to avoid all possibilities of mistake. If the physician intentionally prescribes larger doses than usual of a potent drug he should underline this dose and add a note of exclamation so as to draw attention to the fact that the dose was purposely a large one.
2. The pharmacist should retain the original prescription for future reference, and not merely a copy of it.
3. The medicine prescribed should be supplied not more than once on the same prescription in the following instances: (a) if ordered by the physician 'not to be repeated'; (b) if it contains medicinal substances commonly called narcotic or habit-forming drugs; (c) if asked for by some person known not to be the original holder.
4. One copy of the prescription may be furnished to the patient, but to no other person. If the physician does not desire a copy to be given to the patient he should write on the prescription 'give no copy.' Under no circumstances should a copy of the prescription be given, without consent of the physician, after the patient has recovered." No doubt these are ideal regulations, but the difficulty is to secure the adoption of this procedure by both physician and pharmacist. We would, however, urge upon the profession the importance of adopting some such rules in the interests of the patient, the physician, and the pharmacist.

Medical Men as Hospital Managers.

At a recent meeting of the board of managers of the Alfred Hospital, Melbourne, a motion was tabled by Mr. Collins providing that one seat on the managing board be reserved for a member of the hon. medical staff—a surgeon and a physician alternately for a year. The mover urged that his scheme would bring the board into closer

touch with the staff and prevent misunderstandings. Frequently occasions arose when it would be a distinct advantage for the committee to have the advice of a medical man in its deliberations. He was assured that the experiment had proved a success in other hospitals. In one institution a medical member of the committee had been the means of effecting a saving of £300 a year in the administration of the dispensary alone. It had been stated that the staff was subordinate to the management. He could not admit that. The staff had its duties to perform, and so had the board, and the closer they were brought together the better it would be in the interests of the hospital. The motion was not even seconded *pro forma*, but some discussion took place upon it, and it was pointed out that as the rules stated that "ordinary managers shall not be officers of the charity," some amendment would be required in them if Mr. Collins' proposal was to be carried into effect. The committee were evidently not disposed to consider the proposal, and elected two laymen to the vacancies on the board. It is a matter for regret that so salutary a proposal, and one so essential for the satisfactory and efficient management of a hospital, should have met with the reception it did; and it is to be hoped that the board of managers of the Alfred Hospital will come to see the desirability of adopting the proposed amendment of its constitution.

The Redfern Dispensary.

The question of the continuance of the Branch Dispensary of the Sydney Hospital in the populous district of Redfern has been frequently before the Hospital Board. Recently a deputation representing the district waited upon the Board of Directors to urge the continuation of the dispensary. They urged, further, that as the present building was out of date, the board should seek the aid of the Government in securing a new site for the erection of an up-to-date dispensary.

Sir Arthur Renwick, in replying, said that the board was of opinion that the dispensary must be continued. It had been established since 1872, and it was the desire of the board that an up-to-date institution should be provided, but the present building could not be altered to meet requirements. It had been suggested that the board should find other premises, but seeing the difficulty it had in

getting the £700 a year from the Government for the dispensary, they were not in a position to do so. A previous Government had advised the closing of the dispensary, but the board would be reluctant to adopt that course. The hospital committee was hampered in its efforts to give assistance when required through want of funds. The dispensary should not be closed, as during the past four years 4560 people had received treatment, and if they had larger premises a much greater number would avail themselves of the privileges offered. The board would agree to continue the dispensary for a limited time, and he suggested that the members of the deputation, through their Parliamentary representatives, should wait on the Government, and urge a grant of land for the purpose of erecting new premises.

Cats and the Plague.

Another case of plague has been reported in Sydney, and in this case no infected rats have so far been found in the patient's home. A kitten, with which the patient was in the habit of playing, was seen to be sickly, and on examination was found to be infected with plague. By a curious coincidence, in the *British Medical Journal* of May 30th, which was delivered in Sydney on the same day that this discovery was made, there appears an article entitled "Cats as Plague Preventers," by Lieut.-Colonel Buchanan, civil surgeon in Berar, India, in which the writer shows the extreme value of cats in clearing away rats and so preventing plague. He states that he has found that many natives have taken to keeping cats of their own accord since they began to have a suspicion that rats are the cause of plague, and he thinks that there is good reason to believe that the origin of the Mohammedan customs regarding the cat is based on the idea that cats keep away rats, and therefore prevent plague. He makes no reference to the possibility or to the actual occurrence of cats becoming plague-infected. Possibly, the Indian cat is not attacked by the rat-flea.

We regret to learn of the sudden death of Sir Thomas N. Fitzgerald, the eminent surgeon, of Melbourne, which occurred while he was on his way to Cairns, on July 8th. We hope to publish a full notice of his career in our next issue.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A CLINICAL evening was held at the Royal Society's Room on Friday, June 12th, 1908; Dr. G. H. Abbott, president, in the chair. There were 38 members present.

Dr. VALLACK, of Bowral, exhibited—(1) Tube for draining common bile duct. (2) Blade of grass, encrusted with phosphates, removed from boy's bladder.

Dr. WEEDON read a report on a case of large sarcoma of pelvis, with exhibit.

Drs. Herschel Harris and Hinder made some remarks on the case.

Dr. CLARENCE READ read a report on a case of a tooth in the lung. Patient was exhibited.

Drs. T. Fiaschi, P. Fiaschi, Nash and Herschel Harris discussed the case. Dr. Clarence Read replied.

Dr. SINCLAIR GILLIES reported a case of monocular proptosis. Patient was exhibited.

Drs. Flashman, Vallack, and Nash discussed the case, and Dr. Sinclair Gillies replied.

Dr. PIERO FIASCHI exhibited a pad for controlling colostomy openings, iliac anus, and fistula.

Dr. Maitland made some remarks on the exhibit.

Dr. T. FIASCHI read a report of two cases of resection of liver.

Drs. Maitland, McKay, Wm. Chisholm, Sinclair Gillies, Hinder, Piero Fiaschi discussed the cases, and Dr. T. Fiaschi replied.

Dr. J. MORTON read a report on a case of death due to hæmorrhage from duodenal ulcer in a new-born child. Dr. Clarence Read made some remarks on the case.

Dr. ISBISTER reported a case of fracture of femur in infant during labour.

Drs. Flynn and Binney discussed the case, and Dr. ISBISTER replied.

Dr. CLARENCE READ reported a case of typhoid ulcer; operation and recovery.

Drs. Maitland, Clubbe, Vallack, Corlette and J. Morton discussed the case, and Dr. Clarence Read replied.

THE general monthly meeting of the Branch was held at the Royal Society's House, Elizabeth-street, on June 26th; the President, Dr. G. H. Abbott, in the chair. There were about 70 members present.

The minutes of the last meeting were read and confirmed.

The President announced the election of the following gentlemen:—Drs. Cyril James Weedon, Royal Prince Alfred Hospital; Kenyon St. Vincent Welch, North Sydney; Wm. Augustus Kelly, Wingham. Candidates—Drs. E. H. Bottrell, Coast Hospital; James Paul, Gosford.

Before calling upon Dr. McKay to move the resolution standing in his name, the President explained the grounds for the appointment of an honorary medical secretary, and the drawing up of the programme of meetings for the year.

Dr. W. STEWART MCKAY moved the following resolution:—"That the members of this Association do not consider it advisable to have every monthly meeting of this Association mapped out as set forth in the notice paper issued to the members for the May meeting."

Dr. T. FIASCHI seconded the resolution.

Drs. Spencer, Speirs, Kirkland, Taylor Young, Pockley, McClelland, Chapman, Stacy, Lawes, Steer, Bowker, Maitland, Scot Skirving, Palmer, Wade, Clubbe and Hinder took part in the discussion.

Dr. WORRALL moved the previous question, and it was carried by 40 to 30.

The Chairman then declared the meeting adjourned.

THE Council met at the Association Rooms on Tuesday, June 9th, 1908. Present: Drs. Abbott, Crago, Hinder, Pockley, Palmer, Maitland, Brady, Worrall, Clarence Read.

The minutes of the previous meeting were read and confirmed.

Hon. Treasurer's Statement.—General account, credit, £805 14s 1d; Gazette account, credit, £589 8s 5d.

A general discussion took place as to the question of the cost of printing of the *Gazette*. Resolved—That tenders be called for the printing of the *Gazette*.

The following gentlemen were elected members:—Drs. Cyril James Weedon, Dr. Kenyon St. V. Welch, Dr. William A. Kelly.

Dr. MAITLAND moved—That the notice of papers for general meetings as issued be withdrawn, and that the whole question be discussed.

Seconded by Dr. WORRALL.

Dr. MAITLAND withdrew the motion, after full discussion.

Dr. CLARENCE READ moved—That the Council meet twice a month. Withdrawn on the understanding that a special Council meeting be held when necessary.

Letter from Dr. Cribb, Millthorpe, Hon. Secretary of the Western Medical Association, with reference to the affiliation of the Association to the Branch.

Letter from Dr. Booth, of Broken Hill, re the A. M. Association, and asking for confidential list. Resolved—Application for list be refused.

Letter from Dr. Zeitz, of Collarenebri, asking for transfer from the Queensland Branch to the N.S.W. Branch. Received.

Letter from Mr. Guy Elliston, Secretary B.M.A., London.

Letter from Dr. Ramsay Sharp, Candelo, re Model Lodge Agreement, and asking for the support of the Council. Resolved—Support of Council to be given.

Victoria.

The usual monthly meeting was held in the hall of the Medical Society on Wednesday, 1st July.

The President (Mr. G. A. Syme) occupied the chair, and there were 40 members present. After the usual preliminaries the President announced that a meeting of contributors to the Lady Talbot Milk Institute had been held, and the institute had been duly founded. The articles of association provided for the representation of the Victorian Branch of the British Medical Association on the governing body, the number of representatives not to exceed seven.

Dr. W. P. NORRIS moved that the number at present be five, and that Drs. Helen Sexton, W. R. Boyd, F. H. Cole, Dunbar Hooper and W. A. Wood be elected. The motion was seconded by Dr. W. K. Hughes, and carried.

Dr. HERMAN LAWRENCE gave a demonstration of the application of liquid air and carbonic snow in the treatment of cases of nævi, ulcer cruris, lupus erythematosus, etc.

The President then called upon Dr. Ramsay Webb to resume the adjourned discussion upon Dr. Cherry's paper upon the milk supply of Melbourne.

Dr. WEBB said that he had moved the adjournment with a view to hearing further discussion upon the distribution of milk rather than with the intention of taking an active part in the discussion. He would therefore not waste further time, but hoped the discussion would bring out the weak points in our present system.

Dr. J. JAMIESON thought that Dr. Cherry in his paper had stopped just when he had got to the real subject matter. The milk supply of Melbourne had greatly improved of late years. The proportion of cases of adulteration was certainly less, as was also the infantile mortality. In 1907 the infantile mortality was less than 80 per 1000 instead of over 100. As to the condition of the milk supply he had details of 85 samples taken in Melbourne this year, without discrimination, as shown by the fact that the first 50 of these cases were taken from 47 different suppliers. In the 85 samples only 13 were below standard, and of these, 8 had five per cent. of added water. The *Herald* of that date quoted results of 212 samples, of which they said 61 were adulterated. This seemed to him much too large a proportion to be fair. In his series of cases not one of the first 50 contained preservatives. If suppliers were carefully supervised they would learn to take more care. Was supervision, however, the only duty of the municipal authorities? There was the question of the municipalisation of the trade. The Children's Hospital had approached the City Council with a view to the formation of a municipal dépôt to supply children under two years of age. The council had decided that they would not go into the milk trade. He quoted Kenwood as not being enthusiastic in favour of municipal dépôts. If the municipal councils did form dépôts they must supply all children, not only the poor. Why should the rich be debarred from getting the best milk? The question of education was at present most necessary. The mothers must be reached and told where to get the best milk and how to keep it when got. However good the milk supply, it would not keep for twelve hours in most houses as we knew them. He was not at first very enthusiastic in favour of the anti-preservation crusade. They were, however, now very largely dispensed with.

Dr. ARGYLE, like Dr. Jamieson, was struck with Dr. Cherry's paper in that it did not go far enough. Great praise was due to the Agricultural Department for the Dairy Supervision Act and its administration. The improvement in the dairy farms that Dr. Cherry had spoken of would still increase. The means of distribution and the care of the milk afterwards were still of pre-eminent importance. The difficulties here were greater than in many other parts of the world. Preservatives were quite unnecessary; other means could be used. Refrigeration, however, was impossible, except on large farms. It must be done within half an hour of milking. In a hot summer, a great deal of milk arrived in Melbourne in a state unfit for pasteurisation, or anything else. He considered that greater adulteration was practised than Dr. Jamieson seemed to imagine. Inspection, up-to-date, was not nearly as perfect as it should be. About 900 samples were taken per annum, many of these being duplicates, and there were 1600 registered dairymen. He considered that the addition of water was very largely indulged in in this city. Adulteration meant cheaper milk, and honest dairymen were compelled in self-defence to adulterate. Thus, the first step must be to render adulteration difficult without detection. The only way to get a definite practical result was by certification of dairymen and their milk, having regard to healthy cattle, suitable and sufficient pasturage, clean premises,

healthy men, clean milking, and, last but not least, a bacteriological count of the milk. He hoped that the Talbot Institute would in time be able to tell the public where to get good pure milk. He considered also that all medical practitioners should occasionally test the milk supplied to their patients by means of a Babcock tester and for its acidity. This should especially be done where strippings were ordered. He doubted whether strippings were often delivered as ordered.

Dr. NORRIS said that it was well to recognise that the statistics of adulteration mentioned referred to different areas; hence the discrepancies. Dr. Jamieson's figures referred to the city of Melbourne proper, whereas those in the *Herald*, which he had not seen, probably referred to greater Melbourne. A great deal depended upon how the sample was taken. The inspectors should themselves choose and take the samples. The Health Department's returns for the three years 1905-7 were respectively 750 samples with 35 per cent. adulterated, 960 and 25 per cent., 2200 and 15 per cent. It must be claimed that the effect of preservatives was not to preserve the milk, but to mask its deterioration. The bacterial standard would undoubtedly in the future be recognised as the true one. With routine precautions there should be less than 10,000 organisms.

Dr. A. J. WOOD said that they were indebted to Dr. Cherry for his able resumé of the work done in Melbourne. Last year with a cool summer our infantile deaths had been 301; this year with a hot summer 463, so that much still remained to be done. The transport by rail was the weak point in the present distribution. A deputation should wait upon the Railway Commissioners to urge the necessity of providing adequate protection on the railway stations and louvered cars. He desired also to point out that medical practitioners had powers and duties under the Dairy Supervision Act which were evidently not generally known.

Dr. CHERRY, in reply, stated that criticism of his paper referred mostly to matters of omission. His department—the Agricultural Department—looked after the production and transport of the milk, while inspection was in the hands of the health authorities. He referred to the difficulty in taking fair samples as the cream rises to the top. A proper milk sampler was being devised. The Dairy Supervision Act had been primarily conceived in an educational spirit, especially for the producers. The next steps must be to organise the producers, and induce the Railway Department to run refrigerating cars twice daily for the transport of milk.

South Australia.

THE 29th annual meeting was held at the University on June 25th. The President, Dr. J. H. Evans, in the chair, and 23 members present.

The minutes of the last annual meeting were read and approved.

The Treasurer's statement and balance-sheet was presented. Dr. W. T. HAYWARD moved its adoption. Dr. W. A. VERCO seconded the motion.

The following officers were elected:—Council: President, Dr. Morgan (*in absentia*); vice-president, Dr. W. A. Verco; hon. treasurer, Dr. W. T. Hayward; hon. secretary, Dr. J. B. Gunson; ordinary members of Council—Dr. H. H. Wigg, Dr. F. S. Horn, Dr. H. S. Covernton. Parliamentary Bills Committee: The vice-president (Dr. W. A. Verco), the president (Dr. A. M. Morgan), the retiring president (Dr. J. H. Evans), and Drs. Stirling, Borthwick and Gunson; local editor, Dr. H. Simpson Newland; hon. auditor, Dr. A. E. Wigg.

The PRESIDENT mentioned that he had received a communication from England *re* the Lynn Thomas and Skyrme Fund. He said the Council had decided to leave the matter to each individual member to deal with as he felt fit.

Presidential Address.—The retiring President (Dr. J. H. Evans) then delivered his address on "School Hygiene," which was listened to with great interest. At its conclusion he vacated the chair in favour of the vice-president, Dr. W. A. Verco.

The VICE-PRESIDENT proposed a vote of thanks to Dr. Evans for his valuable and thoughtful address, which was carried with acclamation.

Dr. J. H. EVANS replied.

Annual Dinner.—In the evening the annual dinner was held at the South Australian Hotel. The vice-president, Dr. W. A. Verco, occupied the chair. Thirty-six members were present, including Dr. Phipps, of the "Payche." The usual toasts were honoured, and members dispersed after a most enjoyable evening.

Queensland.

A MEETING of the Queensland Branch was held on July 3rd at the Technical College, Brisbane; Dr. J. Lockhart Gibson, president, in the chair, and an attendance of 16 members.

Dr. SALTER showed a boy of 4, suffering from glycosuria, who had been admitted to the Children's Hospital in November last suffering from popliteal abscess, and since that date 37 incisions for pus had been made, chiefly upon the back and buttocks, and one in connection with the shoulder-joint. The majority of these collections of pus had not the appearance of boils, but were simply small collections of pus under the skin, giving the impression on palpation of softening sebaceous cysts. An examination of the urine revealed from 8 to 10 grains of sugar to the ounce, a condition which had continued up to the present time. At no time had there been any thirst or increase of appetite, and the urine had not exceeded from 18 to 20 ounces per day. The boy had been placed on starch and sugar diet, but was allowed plenty of milk. His appearance and general condition had improved very considerably, and to outward appearance he was now an ordinary healthy-looking boy.

The PRESIDENT exhibited a boy, for whom he had performed the entropion operation on all four lids with very satisfactory results. The boy's eyesight was very deficient in consequence of nebulae on the cornea, he being able to see at three yards only.

The PRESIDENT reported correspondence which had passed between himself and Dr. Sweet, of the Gympie Hospital, with regard to the matter in dispute at that place.

Dr. JACKSON read a paper on "Filariasis."

Dr. P. BANCROFT related a case in which a number of adult worms had been found in a tumour removed from the groin. He remarked that the death of a patient suffering from filariasis occurred sometimes immediately after the death of the worms. In two or three of such cases he had found that the urine contained very numerous short granular casts and a slight quantity of albumin. He related one particular case, the symptoms of which simulated plague clinically and pathologically, the bacteriological examination revealing streptococcal infection. He was very particular to advise patients to take precautions against reinfection, and he thought that steps should be taken immediately with a view to reducing the number of mosquitoes.

Dr. McLEAN stated that filariasis was very largely on the increase; that a number of cases treated at the hospital were found to be infected with filariæ; that

on one occasion he had examined the blood of all the patients of three wards in the hospital and had found filariæ in from 15 to 18 per cent. of them.

Dr. SALTER reported a case of chyluria which had recovered subsequent to an attack of typhoid fever.

Dr. ESPIE DODS related a case in which cerebral symptoms had supervened and which had ended fatally.

Dr. JACKSON remarked upon the frequency with which it was found that a number of the same family were infected.

After further discussion it was resolved that a sub-committee consisting of Drs. Jackson, P. Bancroft, McLean, Avery, Turner, Salter, and the Hon. Secretary should be appointed to consider what steps should be taken towards reducing the incidence of filaria, dengue and other diseases which may be caused by mosquitoes.

West Australia.

The ordinary meeting of above branch was held in the Perth Public Hospital on June 17th, 1908. Present: Dr. Seed (president) and eighteen others. The minutes of the previous meeting were read and confirmed.

Case 1.—Dr. COUCH showed a woman, *æt.* 22, who had had marked thickening of the right masseter from tertiary syphilitic disease. The thickening had very much and quickly gone down under iodide of potassium, though much was still present.

2. Drs. RIGBY and COUCH showed a man with an expansile swelling over the right sacro-iliac joint. Diagnosis was doubtful, but was considered to be in favour of gluteal aneurism. Dr. Tymms, however, regarded it as a vascular pulsating sarcoma.

3. Dr. J. M. Y. STEWART showed a man from whom he had removed an epithelioma, involving two-thirds of the lower lip and the left angle of the mouth. The tumour was first noticed five months ago, had been of very rapid growth, and was exhibited to the meeting.

4. Dr. TYMMS showed for Dr. Hecker a man who had been brought into the hospital three weeks before in a cataleptic condition. The condition, though not so marked, was still present.

5. Dr. COUCH related the details of a case in whom he had injured the right ureter in tying an ovariectomy pedicle, necessitating the removal of the kidney some time after. The patient did well.

6. Dr. CUMSTON showed as a curiosity the brain of a canary which had been observed to have hemiplegia. On examination after death it was found to be the result of cerebral hæmorrhage.

Election of new members.—Dr. A. H. Gibson, M.B., B.S., and Dr. A. T. White, L.R.C.P. and S. (Edin.), were unanimously elected members of the branch.

Accounts to the amount of £6 8s 8d were passed for payment.

After the correspondence had been dealt with Dr. Officer read a paper on "Gastro-enteritis in children, its causes, prophylaxis and treatment."

Drs. Chapman, Cumpton, Ramsay, Couch and Cleland took part in a discussion on the paper, and Dr. Officer replied.

General Business.—The secretary was instructed to write to the widow of the late Dr. Davy, a past president of the branch, whose death had occurred since last meeting. The secretary was also instructed to write to the principal medical officer, Dr. Lovegrove, who is retiring from his position, in appreciation of his past services while in office, and in regret that the time had come for him to sever his connection with the service.

It was decided, upon the motion of Drs. Couch and Officer, that the branch have a dinner, at a date to be fixed.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

The Direction of the Jejunum in the Operation of Gastro-enterostomy.

Moynihan (*Annals of Surgery*, April, 1908) contributes a short article under this heading. He says the operation of gastro-enterostomy has undergone a considerable number of alterations since the day on which Nicoladoni first suggested its performance to von Wölfler. There is now a general agreement among all surgeons that the posterior operation is preferable to the anterior, chiefly because it allows of the opening being made into the jejunum close to the duodeno-jejunal flexure, so that the "loop," the cause of such various complications, may be avoided. But it is not yet decided as to whether it is better to attach the jejunum to the stomach in such manner that the opening shall be with its long axis vertical, or inclined from above downwards to one side or other. In the early description he gave of the technique of this operation he suggested that the jejunum should be attached to the stomach along a line obliquely downwards and to the right. By degrees he came to make the opening more and more vertical, until now it is usually as near vertical as he can make it; with an inclination, when there is one, slightly downwards and to the right. In his hands this operation has given excellent results. Vomiting, either immediately after or at some long time after the operation, had been conspicuously absent. The regurgitation of bile had not been encountered in at least 200 cases dealt with by that method. Dr. W. J. Mayo, and Dr. Munro of Boston, had both met with occasional instances of bilious vomiting. Dr. Mayo had suggested, with a view to eliminating the regurgitation of bile, that the jejunum should be applied with its long axis lying from above downwards and to the left. Moynihan, though not agreeing with the reasons given by Mayo, performed some operations by the method he described, but the results were not by any means so satisfactory as those to which he had become accustomed. In these cases bilious vomiting occurred. Mr. Rutherford Morison had had similar experience. A post-mortem on one of the cases revealed the cause of the trouble, which was a very slight twist in the gut, between the flexure and the anastomosis. When the anastomosis was separated the opening in the jejunum was seen to be not exactly opposite the line of attachment of the mesentery. Dr. Mayo considers that the normal direction of the jejunum as it leaves the flexure is downwards and to the left, to the kidney pouch. Moynihan doubts if that is the direction in all positions of the body. The attachment of the jejunum at the flexure is of such a nature as to allow it to go to left or right, with equal ease, and with equal freedom from kinking at the meeting of the fixed end and the mobile parts. The value of the little suspensory ligament or meso-colic band in preventing any kink is perhaps not inconsiderable. The direction of the jejunum varies in accordance with the position of the individual, and in each position there is an easy transmission of fluid along its lumen. Were it not so, they might suffer high intestinal obstruction as a result of sleeping on the right side at night. That the line of union which points from above, downwards and to the right may be followed, in a long series of cases in succession without the slightest mishap, his own cases show; that the line almost at right angles to that may be equally successful, Dr. Mayo has proved. He suggests

therefore, that, as one might naturally suppose, one line is probably as good as another, or any line between them is as good as either, provided always that no twist be given to the gut at the time the anastomosis is made. His own choice for some time past has been in favour of the vertical line. The essential point, then, is to choose not so much a special line upon the stomach, along which the jejunum should be applied, but to choose on the jejunum as close to the flexure as possible, a line which can be directly approximated to the stomach without the gut being revolved around its longitudinal axis.

The Parathyroid Glands.

Geis (*Annals of Surgery*, April, 1908) in a paper, with seven coloured plates illustrating the blood supply, discusses the importance of these glandules. They were first discovered by Sandstrom in 1880 as a pair of small glandular masses lying in close relation to the posterior part of each lateral lobe of the thyroid gland, and named by him parathyroid glands. They are small reddish-brown or yellowish-brown ductless organs. Most of the glands are of the reddish-brown colour, due to the rich blood supply. When the gland assumes the yellowish tint it is because of the amount of fat that it contains. Of 37 glands observed only one was of the yellowish hue. They are flattened antero-posteriorly, and the long diameter is generally in the superio-inferior direction. They are somewhat bean-shaped, or better still, kidney-shaped, with a sort of hilum where the artery enters. In size they vary greatly, the average long diameter being one-quarter of an inch, while the width and thickness are about one-eighth of an inch. Each gland is composed of solid irregular masses of epithelium like cells arranged in columns, which columns anastomose with one another. Numerous blood-vessels are seen between the individual columns, but there are none between the cells. The parathyroid is absolutely different from the thyroid. The latter are always of thyroid tissue. Wherever this gland may be found it is always within its own capsule. The capsule itself may be intimately connected with the thyroid capsule, but the substance of the gland never has any outside connections. MacCallum and all recent writers are agreed that these organs are separate and distinct glands, and have a different function from the thyroid gland. Four is the usual number of parathyroids in the human body, but this number varies. They are generally located on the posterior surface of the capsule of the thyroid gland. They are outside of the capsule and closely adherent to its surface. The parathyroid glands are always supplied by a special parathyroid artery. This artery supplies the gland itself and nothing else. It is always a direct and separate branch of the thyroid arteries or one of their main divisions; this artery enters a hilus in the gland. After discussing the results of injury to the parathyroid gland, and describing an operation for removal of the thyroid gland which will save the parathyroids, he concludes with the following summary: (1) The parathyroid glands are essential organs. (2) Each gland has a separate and distinct capsule. (3) The average number to a person is about three. (4) They are generally located on the posterior surface of the capsule of the thyroid. (5) Each parathyroid gland has a special parathyroid artery that supplies it and it alone. (6) Destruction of the parathyroids causes death from tetany. (7) Cutting off the blood supply causes the same fatal result. (8) The loss of their blood supply is the more frequent cause of death. (9) To save them and maintain their blood-supply only the arteries that enter the thyroid gland should be cut. (10) The safest method of operating is from above downward.

Intestinal Anastomosis without open Incisions by means of Basting Stitches.

Parker and Kell (*Johns Hopkins Hospital Bulletin*, No. 206, May, 1908) say that the fact that from five to ten new methods for intestinal anastomosis continue to be described each year is itself strong evidence that the perfect way has not been found. The very multiplicity of methods, therefore, furnishes an excuse for suggesting still another, but at the same time it increases in proportion the obligation to make good. Only the best of reasons can justify the addition of one more to the long list, especially since in recent years the technique of intestinal anastomosis, long in a chaotic condition, seem to be approaching the uniformity and precision of an established method. As Monroe has said: "The simplicity, cleanliness, rapidity and safety of the clamp and suture operation are strong arguments at the present time against any substitutes." But if the question be asked in what way can the present methods in intestinal operations be improved upon, an obvious answer presents itself. The way to improve the technique of operations for intestinal anastomosis is to eliminate the open incisions. Two separate and entirely different considerations point directly to this conclusion. These relate to what may be called the two general requirements in intestinal surgery, namely, asepsis and facility in operating. No argument is needed to show that a gaping intestinal wound introduces a serious difficulty into the aseptic problem. Whenever the intestinal lumen is opened, or even when an instrument or ligature is passed into it, and out again, soiling of the peritoneum with at least minute portions of intestinal contents, swarming with bacteria, is almost inevitable. Although good results are obtained in suturing gunshot and other wounds of the intestines, it is not justifiable to introduce the open method into all operations, if it can be shown to be unnecessary, for the danger from operative soiling is a real one, and it is clearly unavoidable in the presence of an open incision. The conclusion is almost equally clear when we consider the question of facility. To meet that requirement a vast amount of ingenuity had been exercised in the invention of mechanical devices, of which the Murphy button is the most brilliant example. Halsted had clearly stated the disadvantages of methods of intestinal suture without mechanical aids as: length of time and number of assistants required; vermicular action of intestine and rolling of mucosa, preventing accurate disposition of stitches and recognition of precise edges; difficulty of adjusting pieces of intestine not of the same size; excessive handling of the intestine tending to injure the peritoneum and predispose to infection. These difficulties, with a single exception, are evidently due to the presence of the open incisions. It is the object of this paper to present a preliminary report, based upon some experimental operations upon dogs, of an attempt to find a way out of this difficulty which confronts us in each of these two widely different problems. The suggestion which the authors offer does not depend upon any new principle or require the use of any ingenious new instrument or stitch. It is rather a simple and almost obvious application of old and well-tried methods in a way which appears to them to solve the problem of the open incisions. It may be defined as an easy and rapid method of suturing, applicable to every form of intestinal anastomosis, whether circular, lateral or end-to-side, whereby the immediate formation of a patent stoma may be accomplished without operative opening of the intestinal lumen, and without the introduction into it of any instrument or ligature. About 200 methods of intestinal suture have been suggested; of these some 25 aim

at avoiding the open intestinal incisions. These methods fall naturally into two classes: first, those in which an immediate opening is formed, and second, those in which the new stoma is intended to be established by pressure necrosis after a variable interval. The procedure to which the authors wish to call attention is an exceedingly simple one. It consists essentially in the use of a Cushing continuous stitch, without knots, to temporarily close the intestinal incision, a separate stitch being used for each of the two visceral openings that are to be sewn together. These stitches remain in place only while the permanent sutures are being applied. On account of this method of application and the temporary purpose which they serve, they bear a certain likeness to "basting" stitches of the seamstress, and for convenience the authors have called them by that name. The steps of the operation may be briefly summarised as follows:—Division of the intestinal walls is made between two narrow bladed crushing clamps, placed first in actual contact and then slightly separated so that there is left between them a narrow crushed area, consisting practically only of serous and fibrous coat, which may be divided by the knife or cautery. The basting stitch is a Cushing continuous stitch without knots, placed upon the clamped incision with the loops between the stitches crossing over the blades of the clamp. When the clamp is removed and the stitch at the same time drawn tight, the edges of the incision are automatically inverted and held firmly pressed together in a straight line without any separation of the lips of the opening having occurred. The two incisions so prepared are then placed side by side, and are stitched together around the whole circumference of the intestinal tube or of the new operative opening that is to be established. When the last suture has been placed and tied, the basting stitches are cut short and withdrawn, the intestinal canal, or the new anastomotic stoma, then instantly becoming patent. This completes the operation as far as the suture of the intestines is concerned. The lumen has not been opened and it has not been entered by any instrument or other object. The stoma becomes open only with the withdrawal of the basting threads. The steps of the operation are essentially the same, whether circular, lateral or end-to-side anastomosis is done. The operation so performed calls for no time-consuming manoeuvres, and no more than ordinary manipulative skill. The basting stitches are as easily and as quickly placed at the purse-string suture used to turn in the stump of the appendix or grasp the Murphy button. Upon removal of the clamp, the stitch is at once drawn tight by a single motion, and the incision, securely closed in a straight line, is then ready for suturing without further attention. The turning of the cut edges which takes place is automatic and never requires the use of an instrument to assist it, as in the case of the purse-string suture. In the beginning of the experimental tests of this method a single discouragement was met with. This occurred in the first three operations upon dogs, done on three successive days, the animals dying of obstruction due to turning in too much of the intestinal wall. This is a fault which it is easy to avoid. The illustrations accompanying the article make the steps of the operation easily understood.

THERAPEUTICS

Medical Treatment of Gallstones.

Wilcox read a paper on this subject at the meeting of the Medical Association of the Great City of New York in November, 1907. He referred to the fact that he had read a paper on the subject 18 months previously. The use of olive oil, followed by high colonic irrigation

with ice water, had brought relief for long periods. While the number of cases thus relieved was comparatively small, it was necessary to remember that in from 6 to 10 per cent. of all cadavers, gallstones were found, and that fully three-fourths of these were in persons over 50 years of age, and that of these not more than 5 per cent. of the cases in which gallstones were found gave any antecedent history of this trouble. Therefore the cessation of symptoms was not evidence that gallstones had been dissolved. The treatment of *gallstones* was absolutely surgical, but the treatment of *gallstone disease* had nothing whatever to do with surgery. The latter was the treatment of the condition of which gallstones were the final expression, and when gallstones had been removed by surgical means, then came the treatment that would prevent the formation of more stones. There were two principal varieties of gallstones—(1) calcium bilirubin stones formed in the biliary passages in the liver; (2) cholesteroline found in the gall-bladder. As to the modes of infection which gave rise to gallstones, there were (1) those from the intestinal canal, and (2) those from the portal vein, and the problem to be solved was the removal of all conditions which caused a congestion of the portal system, and particularly those which favoured systemised infection of the liver and produced stagnation and viscosity of the bile. The drugs indicated were those which caused elimination of bile through the hepatic cells, and exerted a disinfectant action. The main point in medical treatment was to do everything possible to remove all sources of congestion and inflammation of the portal system, and this might be materially aided by massage and exercises.

Treatment of Typhoid Fever with Specific Sera.

Richardson (*Boston Medical and Surgical Journal*, October, 1907) records the result of his experiences in the treatment of 130 cases of typhoid fever treated with the following specific fluids:—Anti-typhoid serum was used in 35 cases, and was produced by inoculating horses over a period of one to two years with gradually increasing doses of dead typhoid bouillon cultures. The serum of the horses was then given to typhoid patients (a) subcutaneously (5 cases in daily doses of 10 to 100 c.c.); (b) by mouth or rectum or both (18 cases, dose 100 to 1000 c.c. daily); (c) in pill form, with special enteric coating (7 cases); (d) 5 cases subcutaneously with equal amount of normal serum (15 c.c. of each daily), to secure assistance of any complements which might be present in the normal serum. It was hoped that serum given thus in unusual method and dose might produce better results than had been previously obtained. In a second series, 74 in number, a typhoid filtrate was used, always subcutaneously. This filtrate was obtained by passing living bouillon cultures through porcelain filters. The age of the cultures varied from two days to six weeks. The results obtained seemed to be the same whatever the age of the cultures. The dose averaged 3 c.c. daily. In a third series, 21 cases were treated with "non-toxic residue of the typhoid bacillus," as prepared by Professor Victor Vaughan; daily subcutaneous dose, 2 to 10 c.c. Finally, in a series of 28 cases (6 of which are already included in series 3), it was attempted to prevent relapses in typhoid fever by the continued inoculation of the non-toxic residue at increasing intervals during convalescence. The conclusions he arrives at are as follows:—(1) That specific therapy, confined to the original disease, increases apparently the tendency of the disease to relapse. (2) That by therapeutic

inoculation, however (Vaughan's non-toxic residue), continued under convalescence, the relapse in typhoid fever can be largely eliminated. This claim is made with much assurance, but is, of course, subject to confirmation by observation upon a much larger series of cases. If relapses can be prevented, then it follows almost certainly that mild typhoid infection can be aborted. (3) That to get the best result, cases must be seen as early as possible in the infection. (4) That as early diagnosis in typhoid is oftentimes impossible, for this reason specific therapy suffers under a severe handicap. (5) That anti-typhoid serum was no more effective than filtrates and residues, and was infinitely more expensive. (6) That typhoid filtrates may exert a powerful effect upon the clinical course of the typhoid process, their use being followed in many instances by chills, or rise in temperature, pulse and respiration, and a general improvement in the clinical picture. The nature of the reaction is still unknown. It is hoped that further study, especially that of the opsonic index, in connection with these reactions may give valuable information concerning their nature. (7) That the non-toxic residue of the typhoid bacillus, as prepared by Professor Vaughan, seems to make the typhoid process longer but milder. It is apparently very effective in the prevention of relapses.

Nitroglycerine in the Treatment of Neuritis.

Stevenson (*Medical Record*, May 16th, 1908) stated that his attention had been called to the value of nitroglycerine in the treatment of sciatica, and having proved its benefit in cases of this nature he determined to try the same drug in neuritis of other parts of the body. He reports now 32 cases of neuritis treated in this way. Twenty-one of them were acute—that is, of under 10 days' duration—and included cases of sciatica, neuritis of the lumbar plexus, of the brachial plexus, of the intercostal nerves, and of the supraorbital and infra-orbital nerves. Six cases were subacute, including neuritis of the brachial plexus, radial nerve, sciatic nerve, and of the nerves of the face. Seven cases were chronic, and involved the sciatic nerve, lumbar plexus and brachial plexus. The etiology of these cases included influenza, typhoid fever, exposure, diabetes, gonorrhœa. Nitroglycerine was administered in all these cases in the following manner:—Beginning with gr. $\frac{1}{15}$ every eight hours, the interval was reduced one hour in every 24 until the full physiological action of the drug was manifest, or the patient was taking gr. $\frac{1}{15}$ every three hours, at which interval it was continued. The disagreeable headache and flushing was controlled by small doses of bromide of sodium. The effect of the treatment was marked in the acute cases within the first 48 hours. All of these were discharged within one week. The subacute cases responded rather more slowly, but were all cured within two weeks. The two diabetic cases in this group responded to the treatment in a few days, but returned in the course of several weeks after withdrawal of the drug; they again responded readily to the same treatment. A marked diminution in the quantity of urine voided and the amount of sugar was noticed when the drug was used. In the chronic cases the results were not so good, but all improved. In the treatment of the chronic cases ammonium and potassium iodide were given in progressively increasing doses, and this seemed to hasten the action of the nitroglycerine. The author considers that the physiological action of the drug indicates its therapeutic effect in the diseases; by dilating the arterioles of the sheath and nerve the nutrition would be enhanced and absorption of inflam-

matory products would be hastened. He considers his results so satisfactory as to warrant the further and continued use of the drug in neuritis, although he makes no claim to it being a cure in all cases.

EAR, NOSE AND THROAT.

Case of Death from Meningitis following Unsuccessful Attempts to Remove a Stone from the Ear.

Schwartz (Halle) (*Arch. f. Ohrenheilk.*, Bd. 70, Heft. 1 and 2, p. 110, also recorded in *Journal of Laryngology*, November, 1907). The patient was a healthy child, aged five, who, when playing on the sands, slipped a small pebble into the left ear. A medical man made several attempts at extraction, but ultimately sent the child to hospital. On examination, Schwartz found the meatus red and swollen, with foetid pus lying in its depth. No perforation sound could be heard on inflation. Attempts made to dislodge the foreign body by syringing induced violent pain in the ear. After some days the puma was displaced forward, under an anæsthetic, and the stone removed. The premonitory symptoms of meningitis set in immediately after the operation and the child died ten days later. At the post-mortem the cause of death was found to be purulent meningitis. In the affected ear the membrana tympana was torn, the mucous lining of the tympanus inflamed, and the membrane of the round window quite destroyed. The cochlea, vestibule, and semicircular canals contained a purulent exudation, and the auditory nerve trunk was infiltrated and invested with pus. Periostitis and osteitis around the fenestra rotunda were also present. Schwartz ascribes the fatal injury to the vain efforts which had been made to remove the pebble by instruments before he saw the case, and defends his own delay in operating on the ground that no acute or threatening symptom were discoverable when first the child was brought to him. At the same time he registers a resolution not to wait for such grave signs in the future, but to operate at once as soon as pain in the ear is experienced.

The Educational Treatment of the Deaf in all the Stages from Impaired Hearing to the Totally Deaf.

James Kerr Love (in the *Journal of Laryngology* for September) devotes a long and well-written article to this most important subject to medical men, and to parents with children who are either totally or partially deaf. He says the figure of the Spanish monk, Ponce de Leon, teaching speech (to the deaf) away back in the middle of the sixteenth century is a grand and striking one. His pupils, though, were the picked children of wealthy Spanish families, and his recorded results were brilliant. Two hundred years after came the Abbé de l'Épée. This great and single-minded man spent not only his time but his fortune, and he did it to show that the average unpicked and unselected deaf child could be taught language. It is 150 years since the time of the Abbé de l'Épée, and now in England it is compulsory to solve the problem of teaching not only the clever and picked cases, but all the ragged, underfed and badly-housed deaf children of the State. Love says: "Scrofulous, syphilitic, half-blind, defective, deaf children, who were thought hardly worth keeping alive, much less worth educating, must now go to school, even if they be driven to it in a municipal carriage or be led to and fro by a municipal nurse. The whole clinical and educational problem is there for solution, and I cannot imagine modern science failing to solve this

problem." He claims that the next great step in the education of the deaf will be the scientific classification of the deaf child for educational purposes. Britain is the country of all others where this is possible. There is no other large country where all the deaf must attend school, and which at the same time is not committed to one system of education.

In Germany only the oral system is recognised; in America there is no compulsory education.

He asks: "How is the deaf child to be classified?" And answers that he is to be classified according to the clinical examination of his remaining hearing and speech, to his general intelligence, eyesight, and the condition of the nose and throat; and these are to be considered in the light of the personal and family history of each child.

The most important questions raised in the clinical examination of deaf-mute children are these:—When did the child become deaf? and, How much hearing has he left? And makes the golden statement that you cannot restore the child's hearing, but you can salvage what remains and build speech thereon, and that, further, even if there be no hearing at all but some unforgotten speech remains, you can save that and build more speech on to it.

In answer to the question, "When did the child become deaf?" he says in all schools for the deaf 5 to 10 per cent. of children have become totally deaf at three or four, up to nine or ten years of age. These have more or less speech left—unforgotten speech, he calls it—but no hearing. These he calls the semi-mute. You must not put these semi-mutes into a manual alphabet school or even into a combined school where speech is taught for only part of the day; otherwise they will tend to lose their speech and may become dumb.

The answer to the second question, "How much hearing has the child left?" defines the second group, the semi-deaf. He says hardly any of what are called the deaf and dumb are totally deaf. Leave out those semi-mute children he speaks of who, as a result of disease, measles, etc., became totally deaf *after* they had learnt, more or less well, to use speech, and of the remainder only a few are totally deaf and, therefore, totally dumb. He says these semi-deaf hear easily, but—and here is the important point—the remains of hearing they have must be for tones inside the speech-area of the scale. This speech-area is limited, only extending through two octaves, and therefore "islands of hearing" outside the speech-area, however acute, are of no use to the teacher—the child can hear certain sounds, but not the voice.

He says, then, that these semi-mute and semi-deaf should be taught together, and taught orally. No manual alphabet should be used. Then he classes as class 1, the semi-mute with the semi-deaf. Into class 2 he puts what he calls the defective deaf. Microcephalics, the nearly blind, congenital syphilitics, the undergrown and badly developed—these, he says, should be taught separately; but the acquisition of speech by these is practically impossible. These two classes—the semi-mute with the semi-deaf and the defective deaf—make up 40 per cent., and the other 60 per cent. he calls class 3, and would label these as "the average deaf-mutes." This deaf-mute is not degenerate or defective, as class 2, and differs from class 1 in that he has no hearing for the voice, or none that can be turned to account. He is a fairly intelligent child. He may be taught orally, and this should be tried always, and only in the event of this failing—and that after a prolonged trial over, say, two years—should he be consigned to the school for the teaching of the sign-manual system.

MEDICAL MISCELLANY.

The Victoria Hospital for Consumptives, Edinburgh, which was founded in 1887 by Dr. Philip, has recently opened a large new wing. Hon. A. J. Balfour took part and spoke of the change of view since the discovery of the bacillus. In this institution patients are admitted as day patients for treatment and proper meals, but sleep at home for lack of hospital accommodation. Use is made of convalescent patients to perform certain duties in the hospital and thereby reduce the cost of maintenance.

The Medical Society of the City Hospital Alumni of St. Louis condemns the practice of moistening the finger in the mouth before handling the leaves of paper or other dry substances, and which is very common among salesmen, post office employees, cashiers and others who come in contact with the public. Resolutions condemning the practice and urging the endeavour to restrict it were adopted at a recent meeting and sent to the Postmaster-General, the St. Louis postmaster, and the Health Department. Passengers on the trolley cars of this city no doubt have often felt a qualm before accepting a transfer plentifully smeared with the conductor's oral secretions, and not long ago a bacteriologist was able to demonstrate the presence of tubercle bacilli on a transfer received from a tuberculous conductor.

The number of cases of appendicitis treated in the public hospitals of Prussia is said to have increased from 8412 in 1903 to 16,781 in 1906. The mortality has dropped from 9.46 to 6.68 per cent. The mortality is the highest between the ages of 10 and 25. One exchange states that more have died at this age from appendicitis than from all other diseases combined.

Professor Witzell, president of the new post-graduate Medical School of Düsseldorf, Germany, announces that foreign physicians are permitted to study at this institution without payment other than the registration fee of about a dollar. In addition to opportunities for work all the year round, a special two weeks' course is given, beginning May 4th, and another four weeks, beginning September 28th.

A ward especially for incipient insanity is to be established at the Hudson River State Hospital at Poughkeepsie. It is to have accommodation for 80 patients, and a free clinic will be run in connection with it. The patients in this department are to be admitted and discharged with as little red tape as possible, and without any legal commitment. It is expected to introduce the same system in the State institutions at Binghamton, Middletown, and Utica.

The committee established under the leadership of Professor Starling to assist the British Royal Commission on experiments on animals, now that it is no longer required in its original form, has been organised into a society called the Research Defence Society, having for its object the dissemination of knowledge about experiments on animals and opposition against anti-vivisection. The society, whose membership already includes many eminent scientists and physicians, intend to supply information and send speakers to debates and publish articles, etc.

Professor Leopold Schroetter, Ritter von Kristeler, died suddenly on April 21st after delivering the inaugural address at the International Congress of

Laryngology in Vienna. He was born in Graz in 1837, and had held numerous academic and hospital positions, and was the author of many books and papers, mainly on laryngological subjects. He was in attendance on Emperor Frederick at the time of his death.

The death-rate of the City of Prague is $4\frac{1}{2}$ per 1000 owing principally to its bad water supply. As trailing dresses are believed to contribute to the dissemination of germs, a general prohibition against long skirts is being enforced.

The list of those who have suffered serious injury as the result of their devotion to Röntgen Ray work has been increased by the case of Mr. Ernest Harnack, of the London Hospital. Mr. Harnack has undergone three serious operations in the last six months. Two fingers and all the lymphatic glands of the left arm have been removed, as well as three fingers and part of the dorsum of the right hand, so that how far, if at all, he will ever be able to resume his work is doubtful. Dr. Hall-Edwards, who is incapacitated as the result of similar injuries, has been granted a civil list pension of £120 a year and the sum of £1000 has been collected for him by private subscription.

On April 23rd Professor E. A. Schäfer, F.R.S., of the University of Edinburgh, delivered a lecture on "Internal Secretions" before the Medical Society of the George Washington University, Washington, D.C. On April 22nd a dinner in honour of Professor Schäfer was given at the Shoreham Hotel by representative educational and medical men of Washington. Brief speeches of welcome were made by President Needham, George Washington University, and others.

The New York City Board of Health at its last meeting adopted an addition to the Sanitary Code to the effect that no oysters shall be kept or offered for sale anywhere in the city without a permit from the Health Department. This new ordinance, President Darlington has explained, is not due to any increase in typhoid fever (the cases of which are fewer than last year), but as the result of investigations as to the cultivation and sale of oysters which have been in progress since the year 1904. Its aim is to prevent the sale of fattened oysters taken from beds polluted by sewage. The permit of any dealer detected in selling such fattened oysters will be revoked, and if he then persists in defying the rules of the department he will be prosecuted in the same manner as all other offenders of the Sanitary Code.

On the same day as that of the meeting of the City Board of Health the Legislature passed a revision of the forest, fish, and game laws, one section of which specifies that hereafter no oysters may be sold in the State which are not "certified to have come from sanitary localities unaffected with sewage or other pollution."

The London *Daily Mail* recently took occasion to find out whether or not physicians practice what they preach in the matter of fresh air, and took a census of physicians' windows in the districts inhabited by the leading consultants—Harley-street, Wimpole-street and Cavendish-square—at 12 o'clock at night. In the two streets and the square there were 2700 doctors' windows. A daylight inspection showed that 522 of them were open, and, according to the preceding figures, at night the number had fallen to 194. The weather during these inspections was pleasant.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Middlesex Hospital—Tuberculosis in the Army—The Sleeping Sickness Conference—The Spiritual Needs of London—King's College Hospital.

THE annual meeting of the Court of Governors of the Middlesex Hospital was held on February 27th, and was presided over by Sir Richard Douglas Powell, President of the College of Physicians. In moving the adoption of the annual report, the chairman expressed his satisfaction at the gratifying record of the year's work and at the prospect of an improvement in the out-patient department. The report for 1907 showed that excluding the cancer charity, 3918 in-patients received treatment, the average daily number of occupied beds throughout the year being 269.5. In the out-patient department the actual number of patients relieved was 46,361, being 410 less than the previous year, but the total number of attendances of the patients was greater by 5935, indicating that the cases treated were of a more serious character. In addition, 1342 patients received treatment in the Electrical and Light department. The total ordinary income amounted to £21,680 1s 1d, and the total ordinary expenditure to £30,507 6s, an increase of £1144 14s 3d on the previous year. There was a decrease in subscriptions of £73 14s. Mr. Pearce Gould, the senior surgeon of the hospital, in seconding the adoption of the report, referred to the regret that the staff felt at the resignation of Mr. Andrew Clark, who had for so many years served the hospital with such efficiency. In regard to the cancer department, where during the year 191 in-patients and 106 out-patients had been treated, he was glad to say that they were getting a satisfactory return for their expenditure. The labours of the workers in the laboratory had been recognised by several important appointments; the researches of Mr. Handley into the mode by which the disease spreads in the body had added to the success with which cancer was dealt with by the surgeon, and Dr. Bonney had discovered the important fact that cancer never attacks in the first instance perfectly healthy tissues, thus emphasising the extreme importance of conserving with the utmost care the perfect integrity of the tissues of the human body. At the conclusion of the meeting a service was conducted by the chaplain, the Rev. H. E. Gunson, in the chapel, where Lord Cheylesmore unveiled a memorial window to the late Sir Arthur Townley Watson, a former vice-president of the hospital.

A preliminary report of the War Office Committee on the treatment of soldiers invalidated for tuberculosis was issued on March 10th. The Committee is composed of:—Colonel Sir E. W. D. Ward, K.C.B., K.C.V.O., permanent Under-Secretary of State, Chairman; Surgeon-General Sir A. Keogh, K.C.B., M.D., Director-General, Army Medical Service; the Lord Lucas, Lieutenant-Colonel J. E. B. Seely, D.S.O., M.P., Mr. T. Summerbell, M.P., Sir J. Batty Tuke, M.P., M.D., Mr. H. W. Moggridge, War Office, Secretary. The terms of reference were as follows:—"To consider the care and treatment after discharge from the army of soldiers invalidated for tuberculous disease." The Committee, having heard expert evidence, and having carefully considered various methods of dealing with tuberculosis among soldiers, has arrived at a unanimous conclusion. Should the scheme proposed and the financial liabilities which it involves be accepted in principle by the Army Council, the Committee will

proceed to elaborate it in detail. The Committee is of opinion that the practicable methods of treatment resolve themselves into three alternatives, as follows: (1) To continue the present method, viz., to discharge at once from the Army any man who is diagnosed as suffering from tubercle of the lung, to discharge him from hospital as soon as he is fit to travel, and afterwards to disown all responsibility for him. (2) To provide a special central military sanatorium for tuberculosis patients, to which all soldiers suffering from the disease should be sent for treatment; and (3) to make use of existing civil sanatoria in all parts of the country by reserving in each a number of beds at the expense of Army funds, and by transferring soldiers who are suspected of having the disease to the available institution nearest to their homes. The last method (3) is the one recommended by the Committee. Under the existing arrangements no provision whatever is made by regulation for soldiers invalidated for tubercle. It is laid down that after diagnosis they shall forthwith be discharged from the Army and sent to their own homes as soon as they are fit to travel. They are not awarded any pension unless they have earned it by length of service, or it can be specially proved in the particular case that the disease was due to service or climate. It must be added that the stringency of the regulated treatment has been greatly mitigated in practice by the action of officers of the Army Medical Department, and by the assistance of private persons. The Committee is of opinion that the State should admit responsibility for the men, and that suitable treatment on an organised basis should be provided for them by regulation. In coming to this conclusion they are actuated not so much by the claims of the patients themselves, though this aspect of the case is not negligible, as by the consideration of the danger involved to the civil population. The Committee cannot think that the State is justified in discharging a man, because he has an infectious disease—to return to his home, where the conditions are often specially suitable to the spread of the disease, owing to cramped space, etc.—and thus to become a menace to the civilian public. The possibility of providing a central military sanatorium, to which all military consumptive patients should be sent for treatment, was considered and rejected. The Committee considers that the best solution of the problem is to be found by making use of the rapidly-increasing number of civil sanatoria. It recommends that these institutions be approached with the request that they will reserve a certain number of beds for the sole use of the Army. The cost of this proposal cannot be ascertained in detail until the sanatoria have been consulted, but a rough idea of the amount involved can be given. About 200 beds would, it is computed, require to be maintained; the cost of these at 30s a week would be £15,600 per annum. It may, therefore, be said that the total cost of the scheme will not exceed £20,000. The Committee recommends that it may be authorised to proceed with the details of its scheme on the understanding that an annual expenditure of not more than £20,000 is involved, and that any initial expenditure must be counterbalanced by a corresponding reduction of the annual cost.

The second International Conference on Sleeping Sickness, which was convened at the suggestion of the British Government, held its inaugural meeting at the Foreign Office on 9th March, under the chairmanship of Lord Fitzmaurice. On behalf of the British Government the chairman cordially welcomed the delegates, who then proceeded to consider the draft of the general

acts drawn up by the British and German Governments, and to discuss the views held in their respective countries on the best means for the prevention and cure of the disease. The complete list of delegates of the seven countries represented at the Conference is as follows:—Germany: Dr. Robert Koch, Herr H. von Jacobs, and Dr. Steudel. Spain: The Marquis de Villalobar and Dr. F. Murillo Palacios. Congo Free State: Colonel Lantonnais and Dr. van Campenhout. France: M. Le Myre de Vilers, M. Ronassin, Dr. Kermorgant, Dr. Cureau, and Dr. Giard. Great Britain: Lord Fitzmaurice, Sir W. Foster, Mr. A. Walrond Clarke, Mr. H. J. Read, Sir Patrick Manson, Dr. Rose Bradford, Sir R. Boyce, and Colonel D. Bruce. Italy: Professor Rocco Santoliquido and Professor Adolfo Cotta. Portugal: Dr. Ayres Kopke. The Italian delegation was accompanied by Count Bosdari, Italian Charge d'Affaires. After several meetings, the Conference terminated somewhat abruptly without the members being able to agree on the draft convention. The French and Italian plenipotentiaries declared themselves unable to accept a proposal made at the last Conference in June and then unanimously recommended, for the establishment of a central bureau in London. The German plenipotentiaries strongly supported the British plan for the establishment of a bureau in London. The French plenipotentiaries were also unable to agree to other parts of the Draft Convention, and although the majority of the powers represented supported these proposals, it was found useless to proceed further in the absence of unanimity. The president, Lord Fitzmaurice, in closing the proceedings, said the position was the same as at the London Conference on Egyptian Finances in 1884, when agreement was found impossible. Nevertheless, it was his opinion that the Conference had not been useless. The assembling in London of the distinguished scientific men whom they had welcomed, the discussions which had taken place, and the communications which had been read, were in themselves an important record of scientific views, and would help to form opinion on controverted points. It was also now clear that much might be done between the Powers in East Africa by separate Conventions to secure uniformity of treatment of the disease, especially on the frontiers, and he hoped and believed that this could be done diplomatically. Thereby, a further step would be taken towards ultimate agreement on the larger question of the establishment of a central bureau for combating the disease, and he would remind the plenipotentiaries that the questions which had failed to find a solution in 1884 were, nevertheless, settled in 1885, which he deemed a happy augury.

On March 9th, the Bishop of London preached a sermon to an overflowing congregation of city men at St. Michael's Church, Cornhill. The service was held at the suggestion of the City Association of the Bishop of London's Fund, and aimed at awakening the interest of business men in the work of meeting the increasing demands made upon the Church's activities. The service was attended by the Lord Mayor and Sheriffs of the City, and by many distinguished and important city men. Dr. Winnington Ingram chose for the subject of his remarks, the spiritual needs of the Metropolis, and in the course of his address stated that the idea of this service had originated from that held in Wall-street, New York, during his recent tour in the United States. When people had read of that service, which had stirred so much interest, not only in America, but in this country, they had asked him: "Will not your men rally round you? Is it im-

possible to speak a message to the heart of the City of London?" He had said: "No; God helping me, it is a possible thing. My men in London will rally round me in this if I ask them, as did the men in New York," and this great and representative congregation was the answer. Proceeding, the Bishop said there never had been such a problem in the history of the whole world as London represented. It was a great enough problem to feed London and to get a good milk and water supply, but that which he had called them together to face with him was the spiritual problem: How were they to bring the love of God home to every living soul in London? On whom did the chief responsibility rest? If he, as Bishop of London, did not work from morning till night and give every penny that he possessed he should not be doing his duty. He must give himself and all he had before he asked another living soul to help him. But then, having done that, he came to them, who, after himself were most responsible. But, firstly, were they honest in their business relations and straight in their private lives? Then as to their second responsibility, they must remember that life was a stewardship, and that not one penny that they had belonged to them. Surely they, whose great businesses had brought together this multitude, which was London, should be the first to see that the souls of these people were cared for. If they answered to his appeal they would stand by him, and would make the City Association for the Bishop of London's Fund a first charge upon their support. All the business capacity and expert opinion, lay and clerical, that they could command was brought to the administration of the Fund. During the last forty years they had built 220 churches in the growing parts of London, and, without that, London, from a Church point of view, would be a pagan place. They could not take part in a more hopeful work for this great City than in backing up the Bishop of London's Fund. Therefore he appealed to them personally as their Bishop to stand round him.

The annual Court of the Corporation of King's College Hospital was held in the Board Room on February 27th, under the presidency of Dr. A. C. Headlam, the Principal. In the report for 1907, which was taken as read and adopted, it was stated that the ordinary income for the year amounted to £13,345, a decrease of £2700, as compared with 1906, that decrease being due chiefly to a falling off in donations. Despite strict economy, every legacy received during the year had been absorbed by current expenses, and the year closed with a deficit of about £1100. The committee earnestly appealed for donations and new and increased subscriptions. The Court was next invited to consider the King's College (Transfer) Bill, which is being promoted by the Council of the College and the Senate of the University of London with the consent of the committee of management of the hospital. By the bill the Council gives up all authority over the hospital; it also gives up the control of the Advanced Medical School, which will be under the committee of management. Certain necessary changes are made in the constitution of the hospital, and the previous Hospital Acts are amended in various particulars. The funds to which the Medical School is entitled are defined, and there is a clause prohibiting the application to the school of any money given solely for hospital purposes. These provisions have received the approval of King Edward's Hospital Fund. A schedule gives a constitution for the Medical School, which the committee of management have power to amend. The bill will considerably increase both the responsibilities and the powers of the hospital authorities, and the committee

confidently recommended the Court to give it their approval. After a very brief discussion the bill was approved. The Chairman, in referring to the impending removal of the hospital to south London, said that long and difficult work in raising the necessary money, in preparing plans, etc., had been accomplished, and now he was glad to be able to announce that a fortnight ago tenders had been accepted for the first portion of the out-patients department, and that building operations would begin immediately. Cash in hand or definitely promised amounted at present to £103,000, which would last some eighteen months, and he sincerely hoped that during that period the further sum of £100,000 needed for the completion of the first portion of the hospital would be forthcoming. General Lord Methuen and Sir Alfred Lyall were elected vice-presidents in recognition of their valuable services to the hospital. The work of demolishing three houses occupying part of the site at Denmark Hill required for the new King's College Hospital is well in hand. On its completion the building of the first block, to comprise casualty, bathing and electrical, out-patients and dispensary departments, will be commenced immediately. The cost will be £65,000, and it is hoped the building will be completed within eighteen months. The plans for the administrative block, which is to be the next taken in hand, are in a very advanced state, and it is hoped that before the first portion is completed no little progress will have been made with this section. Following on this, attention will be devoted to the ward blocks. In the first instance, it is proposed to provide for some 350 beds, though the complete scheme makes provision for 600 beds and a medical school, which in its equipment and up-to-date arrangements will be worthy of the great institution of which Lord Lister is still the consulting surgeon. Of the £300,000 required for the carrying out of the scheme up to the point at which 350 beds will be available, £193,000 has been realised, and the appeal committee of the Hospital Removal Fund are hopeful that further subscriptions will be forthcoming, especially in view of the fact that large payments will have to be made now that building operations are beginning.

Victoria.

(From our Special Correspondent.)

The Lady Talbot Milk Institute—The Fight against Tuberculosis.

ONE of the last acts of their Excellencies the State Governor and Lady Talbot before their departure for Victoria was to preside over a consummation of their own wishes and efforts in the establishment of an institute whose objects are to endeavour to secure a pure milk supply for Melbourne and to educate those handling the milk before, during, and after distribution as to the best means of keeping it. The institute was formally founded and articles of association adopted at a meeting of contributors held recently. The council is to consist of 16 members, of which seven may be nominated by the Victorian Branch of the British Medical Association. Practically the first steps in this direction were taken at the special meeting of the Branch on May 22 last, so that no time has been lost in bringing the matter to a definite issue.

The fight against consumption and other forms of tuberculosis is again very much to the fore in Victoria at present. Some months ago the Prahran City Council proposed to establish a sanatorium or home for advanced cases which were a menace to their neighbours. The project, however, was vetoed by the Government, for the two reasons that the site proposed was unsuitable

and that any action in that direction would be better undertaken by a combination of municipalities acting in conjunction. Soon after this Dr. Agnew, the health officer of Collingwood, in his report to the Council drew a startling picture of the misery of the many advanced cases of phthisis in the municipality and their danger to all who came in contact with them. As a consequence of this report the Collingwood Council convened a conference of municipalities "to consider the best means of dealing with the terrible scourge which has been aptly termed the white plague, and at the same time to take into consideration what can be done to succour and shelter that most unfortunate one—the incurable consumptive." A most enthusiastic meeting of representatives was held on June 29th, when it was evident that the general feeling was in favour of immediate action being taken. After some discussion it was decided that another meeting of the conference should be held on July 23rd. Dr. Norris, chairman of the Board of Health, in addressing the conference, suggested that in the meantime they should confine their efforts to dealing with the advanced consumptives whose unrestricted movements were hopeless to himself and dangerous to others. There were at least 500 advanced consumptives in Melbourne every year. He favoured the grouping of municipalities and the establishment of suitable homes. Notification was useless and unfair without the necessary accommodation for sufferers. There is no doubt that a great deal more accommodation is necessary, especially for the advanced cases in crowded districts. In the annual report of the Melbourne Hospital the committee renews its old protest against the institution being practically compelled to receive large numbers of consumptive patients. The number admitted during the past year was 136, and the number of deaths 49. A general hospital is certainly not the place for these cases, especially when they occupy beds wanted for cases where permanent results can be obtained. The Board of Health is also extending its scope in this direction. Before the end of this month the accommodation at the Broadmeadows Sanatorium will be increased from 60 to 80. Soon after that accommodation for 32 patients will be provided in connection with the Amherst Hospital, and 10 beds for male patients at Daylesford. The Board has also obtained control of a few beds for advanced cases at the Austin Hospital at Heidelberg. With all these activities at work the deaths from consumption in Melbourne which within the last few years has fallen from 1000 to 600 per year should very soon be considerably less.

THE GYMPIE HOSPITAL.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I have been instructed by my council to ask you if you will be so good as to publish the enclosed correspondence which has passed between Dr. Lockhart Gibson, president of the Branch, and Dr. Sweet, resident surgeon of the Gympie Hospital. The correspondence is in relation to the deputation which waited upon the Home Secretary with reference to certain resolutions passed recently by the committee of the Gympie Hospital.

The resolutions are as follow:—

7. (b) District Subscribers—"Any person may become a district subscriber to the institution by subscribing to the funds thereof not less than the following amounts, payable in advance: (1) 1s per week or (2) 12s per quarter, or (3) £1 1s per half-year or (4) £2 per year, and shall be entitled, subject to the rules of the institution, to medical and surgical treatment by the

resident surgeon at the hospital, and, if necessary, to a bed in the hospital free of any further charge for himself, and if he be a married man, for his wife and for such of his children as shall be between the ages of 3 and 14 years. Providing that such subscriber, before being entitled to the privileges hereby conferred shall have been a subscriber for a period of at least ten months."

7. (c) "All employees of any mining company, or syndicate or tribute party carrying on mining operations within the Gympie district, who shall contribute to the funds of the hospital the sum of 2s per month, shall, subject to the rules of the institution from the time of payment of the first of such sums, be entitled to medical and surgical treatment and, if necessary, to a bed in the institution free of any further charge, provided that such employee shall continue to pay the said sum of 2s per month while in receipt of such treatment, and shall not be in arrear with his weekly contributions at the time of making application. Providing that such subscriber, before being entitled to the privileges hereby conferred, shall have been a subscriber for a period of at least ten months."

31. (a) Operations—"All operations performed in the hospital shall be subject to payment of a reasonable fee by the patient, if he or she is able to pay for the same, such fee to be at the discretion of the resident surgeon, who shall take into consideration the nature of the operation and the position and surroundings of the patient, provided always that no operation shall be delayed or postponed owing to such fee not having been paid or arranged for."—I am, faithfully yours,

A. B. BROCKWAY, Hon. Sec.

51 Wickham Terrace, Brisbane.

The Gympie Hospital, June 8th, 1908.

Dr. J. Lockhart Gibson, Brisbane.

Sir,—I notice a report in the local paper of a deputation of the Queensland Branch of the British Medical Association to the Home Secretary with regard to the proposed amendments to certain regulations of the Gympie Hospital. Had these regulations, as well as the proposed amendments, been carefully perused by the members of the deputation, or had I as a member of the body represented by the deputation been consulted, I do not think that certain misconceptions would have arisen, as it is evident they have done, from the report of the proceedings. I think you will agree with me that it is always advisable to say "*Audi alteram partem*." The amendments were drawn up by a sub-committee of the Gympie hospital committee as a means of increasing the revenue of the hospital. The goldfields have been steadily declining, but the number of patients has largely increased. It was found necessary in consequence to make every legitimate effort to increase the hospital revenue. The committee had my entire sympathy in their difficult task, and although I had no hand in framing the rules, some of my former suggestions were embodied. These were all on the lines of what is in vogue in the hospitals of Great Britain. The regulations objected to in the report concerning district subscribers have more than one precedent in the hospitals of this country. The object of it was to allow certain moderately poor people in the country who were debarred from going to any of the recognised benefit societies to obtain medical treatment, and at the same time to be not dependent upon a charitable institution which was admittedly in want of funds.

The only personal objection which I have to this regulation is that it is not sufficiently limited to the

class for whom it is intended by an income limit. The same objection, however, still holds with regard to the friendly benefit societies as at present constituted, and which the N.S.W. Branch of the British Medical Association have been attempting to remove. These regulations were fully discussed at two public meetings convened for the purpose at the Gympie Court House. The medical men of the district were invited to be present by myself in order that their interests might be represented, and none of the medical men of Gympie were away on both occasions. The regulations objected to were proposed by the only medical man who attended the meetings (besides myself), and his subsequent amendment that there should be an income limit was negated by the meeting.

From the report of the deputation to the Home Secretary it was submitted that such provisos would be unjust to the poorer patients for whom the hospital was intended. The answer to this is that it does not affect the poor in the very least degree, for these regulations, as already explained, only apply to a certain section. The sick poor, for whom the hospital was primarily intended, are received under the new regulations, as they always were, free from all charges. On the contrary, the new regulations tend to prevent pauperisation, and if you will be so good as to refer to the supplement of the *British Medical Journal* for April last dealing with the Inter-Hospital Conference of Great Britain, you will see that the spirit of several of our new regulations, if not the letter, was proposed and carried by that most conservative body of English charities then convened in London for the full discussion of the whole question.

I trust I have said enough to show you that there is no desire upon the part of the hospital committee to interfere in any way with the practices of the medical men in the neighbourhood, and that you will accept my assurance when I say without fear of any contradiction that in all matters pertaining to the profession they have been given the fullest consideration.—I am, yours truly, (Signed) W. SIDNEY SWEET.

Brisbane, 10th June, 1908.

Dr. W. E. Sweet, Gympie Hospital.

Dear Sir,—I have to acknowledge receipt of your letter of June 8th. Absence from Brisbane during the whole of yesterday prevented my doing so immediately upon its arrival. I shall of course lay your letter before the Council of the Queensland Branch of the B.M.A. May I trouble you in the meantime to supply me with the exact references in the supplement of the *B.M.J.* for April to the inter-hospital resolutions which in your opinion support either in spirit or in letter the new regulations adopted by the subscribers to the Gympie Hospital.—I am, yours truly,

(Signed) J. LOCKHART GIBSON.

The Gympie Hospital, June 14th, 1908.

Dr. J. Lockhart Gibson, Brisbane.

Dear Sir,—I have delayed answering your letter until I could obtain the copy of the supplement referred to, which I had lent, and so give you the necessary reference. It is the supplement of the *B.M.J.* for April 14th, 1908, which gives an account of the United Kingdom Hospitals Conference. In it the desirability of making both in-patients and out-patients contribute to the hospital is fully discussed, and a motion to that effect was carried. Reference is also made to the custom in many Scottish hospitals of receiving regular weekly contributions from the labouring classes; also the Hon. Sydney Holland, of the London Hospital, admittedly one of the

best authorities on hospitals and hospital management, makes the statement that hospitals competed less with medical practitioners when they made a charge than when they gave something for nothing.

There are two other allusions which were made in the report of the deputation over which I think there seems to be some misunderstanding. I will quote from these amendments to make the matter clear.

The out-patient department is intended for the treatment of the sick poor, who will be charged a nominal registration fee of 1s per month (as is done elsewhere in Queensland). Out-patients *able to contribute something* will be charged a reasonable fee at the discretion of the resident surgeon. This amendment was made to cover two classes of cases, viz.:—(a) Those who, not belonging to any medical benefit society, were unable to pay the ordinary consultation fee. This was agreed to by the medical men here when I discussed the matter. (b) Those who were well able to pay the ordinary fees, but were attempting to get advice and medicine for nothing, and who presented signed tickets certifying that they were unable to pay.

Now, it will be seen that the amendment militates more against myself than the other medical men here, for the reason that, although I am given the right of consulting practice, by this regulation patients may consult me without paying for it.

The second matter is with regard to operations, amendment 31a: "All operations performed in the hospital shall be subject to payment of a reasonable fee by the patient if he or she is able to pay for the same, such fee to be in the discretion of the resident surgeon, who shall take into consideration the nature of the operation and the position and surroundings of the patient, provided always that no operation shall be delayed or postponed owing to such fee not having been paid or arranged for."

Now, it will be seen that there is nothing here that affects "the poor person for whom the hospital is intended," nor does it compel any surgeon to perform any operation, which he would do otherwise in his own practice, at the hospital, and then a charge be made which would not go to him but to the institution, because every operation done in the hospital is performed by myself. Moreover, besides benefiting the hospital, it helps to check a very prevalent abuse. According to the rules which have been in use since 1901, any person (without limitation) may enter the hospital as a paying patient at the rate of £1 1s per week and have a major operation performed without further charge. I do not think any further remarks are needed to show that the amendment puts matters on a much more equitable footing for those practising in the district.—I am, yours faithfully,

W. SIDNEY SWEET.

Brisbane, June 17th, 1908.

Dr. W. Sydney Sweet, Gympie Hospital.

Dear Sir,—I have to thank you for the references to the United Kingdom Hospital Conferences. As the Council of the B.M.A. Branch will not meet for more than a week, I am acknowledging your letter containing the references now. May I, however, in the meantime assure you that nothing in either of your letters would in any way have altered my own attitude to the new resolutions of the Gympie Hospital, and that those resolutions are, in my opinion, at complete variance with the spirit of the whole Inter-Hospital Conference and very much at variance with the attitude of the Hon. Sydney Holland.—Yours faithfully,

(Signed) J. LOCKHART GIBSON.

The Gympie Hospital, June 19th, 1908.

Dr. J. Lockhart Gibson, Wickham Terrace.

Dear Sir,—Many thanks for your reply. I regret that we should draw different conclusions from the same logical premises. I understand that when a motion is carried by the majority at a conference that the conference as a body are in favour of the motion, in spite of certain dissentients.

The fact that a motion was carried in favour of the payment of patients whenever they can afford to do so, in the hospitals of Great Britain, is all that I have maintained in that connection. Trusting that I have not given you unnecessary trouble, and thanking you for your courteous replies, I am, yours faithfully,

(Signed) W. SIDNEY SWEET.

51 Wickham Terrace, Brisbane, July 1st 1908.

Dear Sir,—Your letters were laid before the council of the Queensland Branch of the British Medical Association, and the report of the conference was at the same time studied. The council has authorised me to reply to your letters.

The Council endorses the opinion expressed by me in my second letter to you. We are satisfied that we were under no misconception in approaching the Home Secretary, and that your letters have given us no information which would have modified in any way the opinion we then expressed. Regarding the Inter-Hospital Conference of the United Kingdom, we are quite satisfied that the spirit of the whole conference, and the spirit and letter of its resolutions give no support to the resolutions recently passed by the Gympie Hospital subscribers. The subscribers, on the contrary, affirmed without the least ambiguity:—

1. That the right of admission to a public hospital shall rest on two points, and on these only, namely, the inability to pay for adequate treatment, and the being a suitable case for treatment from a hospital point of view.

2. That no charge may be made for treatment or advice in a public hospital.

3. That in the case of hospitals supported in part or largely by weekly contributions from the working classes, these contributions in no way entitle a contributor to the use of the hospital unless he fulfils the above conditions of suitability; that the working classes, indeed, contribute their weekly pence, not that they themselves may have a right to the hospital when sick, but to support their hospital that it may be available for all who are unable to pay, and are suitable patients.

4. That where they can afford to do so, hospital patients ought to be asked to pay for the food, medicines and bandages supplied to them.

This resolution is the one which provoked a good deal of dissent, and of which the *British Medical Journal*, in its leader, strongly disapproves. This, we suppose, is the resolution which you say was carried in favour of the payment of patients. Its supporters, however, made it very clear that patients were to be made to understand that such small payments as they might be allowed or expected to make, when able, were for food, medicine and bandages; that in the event of advice and treatment only being given, no payment at all be taken, and if taken, it shall be returned to the patient. The Inter-Hospital Conference has therefore made evident what, indeed, we were quite aware of before, that not only is nothing parallel to the Gympie Hospital resolutions in vogue in hospitals of Great Britain, but that resolutions similar to them would not for a moment be entertained there.

Regarding your argument that the financial difficulties of the Gympie Hospital justify extraordinary methods for raising revenue, we can only answer that poverty does not justify wrong even in an institution.—I am, yours faithfully,

(Signed) J. LOCKHART GIBSON, M.D., President.

The Gympie Hospital, July 4th, 1908.
Dr. J. Lockhart Gibson, Brisbane.

Dear Sir,—I beg to acknowledge receipt of your letter of the 1st of July. I have noted the references made to the report of the Inter-Hospitals Conference, and your own deductions, or, rather, inductions, made therefrom.—I am, yours faithfully,

(Signed) W. SIDNEY SWEET.

The Silver Jubilee of the Sydney Medical School.

THE fifth annual dinner of the Sydney University Medical Society was held on Saturday, June 27th, and was made the occasion of celebrating the silver jubilee of the Sydney Medical School. There was a large attendance of present-day students, as well as many well-known members of the profession. The gathering was a most enthusiastic one, the regular musical programme being supplemented by impromptu choruses from the various "years," which sat in groups. During an interval in the festivity the bond that exists between the medical students of Sydney was emphasised in a very telling way when the present Fourth and Fifth Years drank a silent toast to the memory of John Groundwater, the latest of their number claimed by death.

Dr. W. G. ARMSTRONG, the first graduate, proposed "The Medical School and the Dean of the Faculty." He said he had known the school for the past quarter of a century, and his idea of it was the same as that held by Professor Stuart. He could take them back to 1883, when there were four students, and the school was housed in a small four-roomed cottage at the rear of the present Macleay Museum. He was one of the six men who received their education in those two hovels, for shortly after they graduated the school was transferred to the fine pile—not too fine, however, to house the work that had grown up—which owed its existence to Professor Stuart. To-day they had 270 students, three professors, 14 lecturers, and five demonstrators, while 400 medical men now in practice had received their training there. One of its alumni, Professor Grafton Elliott Smith, had made a name for himself in Europe. No better or more enduring monument could be erected to any man than which Professor Stuart had erected in the Medical School of the Sydney University, of which they were justly proud.

Dr. SCOT SKIRVING, in supporting the toast, said he had known Professor Stuart in 1876 and the Medical School since its creation. In energy, usefulness, and ability he was just the same then in the old country as he was now. He came to a new country to found a new school, and it was an example of what steady and single-hearted perseverance could do. He had made himself one of the most useful citizens Sydney had ever imported.

Professor ANDERSON STUART, in reply, said he had been looking forward to this hour for 25 years. No false modesty prevented him from saying that he considered the Sydney School one of the best in the world. This was not saying that he had any right to all the credit

of its success. Others had helped the good cause, and circumstances had been favourable. He did say, however, that in season and out of season and in his earlier years in Sydney he did not know what leisure was, being for seven years professor of both anatomy and physiology. But this was rather the time to forget difficulties and disappointments, and to rejoice together. To-day there were 349 students of medicine, and probably some of them would recall the exclamation of Abernethy 100 years ago when he went into his lecture theatre, and seeing a crowd of students exclaimed, "God save us! Where are you all going to get a living?" He made bold to say that there was no profession in Australia which offered so good a living so soon after qualifying as that of medicine. He would give some proofs. Let them ask the medical agents how many men were unemployed from want of work, and they would answer, "None." Let them ask the doctors who wanted a holiday what sort of a *locum tenens* they got. It was the rarest thing for him to receive any reply to the various notices he posted up from all over the Commonwealth requiring men. He could account for this scarcity very easily. In the first place, in Australia one medical man was needed to every 1000 people. In New South Wales alone the increase in population was 40,000 every year. As far as he could learn about 30 medical men died in the State annually. On these two considerations alone 70 new men were needed every year, but as Sydney sent men to other States, something like 80 or 90 fresh graduates were required. Now, to supply the demand the average annual number of graduates was only 14, the highest number on record being 39. In other words, they had not supplied one-third of the demand. As to the reputation of the school in its own country, he learned the other day the interesting fact that out of 200 members in the Australasian club in Edinburgh only two hailed from New South Wales. The value of the school to the State had never been fully appreciated. If it did not exist, to many students the profession would be an impossibility. But supposing two-thirds of the present number, roughly 240, were forced to go abroad, assuming that each spent about £150 a year, this would mean a loss to the State of £36,000 annually. That was his sermon. Before he pointed its moral he would say that it was a fortunate coincidence that the last few days had seen the commencement of building extensions, which would come none too soon. The £20,000 provided in this way by the Government would ensure the extension of the departments of anatomy, pathology, and surgery, there not being enough for physiology. He hoped a department of tropical medicine would soon be in working order. Plans were already prepared for improving the physiology department, doubling the dissecting-room, and removing the museum to quarters where the specimens might be properly seen. He was now senior professor. The speaker paid a tribute to his early colleagues, Professor Wilson, Dr. McCormick, Sir James Graham, and others. He felt he might well be pardoned for feelings of pride and pleasure on that occasion. Looking through the figures for the medical schools of the German Empire he found that their own would take sixth place there. The student of the Sydney School might indeed feel that he was a citizen of no mean city.

The toast of the "Teaching Staff" was proposed by the president of the Medical Society, Dr. A. J. ASPINALL, with a response by Dr. J. FOREMAN.

The musical programme was contributed by Messrs. P. W. Leatherby, K. Smith, and Drs. Reg. Davies and Mervyn Archdall.

Some Literary Notes

The *British Medical and Surgical Journal* has recently published extracts from an old manuscript entitled "Hamilton's Itinerarium: Being a narrative of a journey from Australia, Maryland, through Delaware, Pennsylvania, New York, New Jersey, Connecticut, Rhode Island, Massachusetts, and New Hampshire, from May to September, 1744." In the original manuscript of the proceedings, now in the possession of the May and Historical Society, Baltimore, Md., of the Tuesday Club, which was founded by Dr. Hamilton and died with him, there are the following entries: Dr. Alexander Hamilton was born in Scotland in 1712. He came to America and settled in Annapolis, Province of Maryland. He was a cousin of Dr. R. Hamilton, Professor of Anatomy and Botany in the University of Glasgow. He organised in 1745 with James Green, Esq., the editor of the *Maryland Gazette*, the Tuesday Club of Annapolis, Md., of which he was the secretary and orator as well as its life and soul during the ten years of its existence. He was the preceptor of Dr. Thomas Bond, of Calvert County, Md., who projected, incorporated, and organised the Pennsylvania Hospital, Philadelphia, which was opened in 1752. He died May 11th, 1755, forty-four years old." Dr. A. B. Hart, Professor of History in Harvard University, who has edited this publication, in the course of an introduction, makes the following remarks: "Throughout the journey, Hamilton found himself at home among the doctors, and the Itinerarium throws an interesting light upon the conditions of the art of healing nearly two centuries ago. Besides his previous acquaintances in the profession, he started out with letters of introduction to several distinguished physicians, and was by them recommended to others. Among them was the eminent Dr. Phineas Bond of Philadelphia, who showed him 'some pretty good anatomical preparations'; Dr. Colquhoun, of New York; Dr. Moffat, of Newport; Dr. William Douglas and Dr. Clark, of Boston; Dr. Goddard, of New London. Much is recorded on the controversy between the 'empirical' and the 'clinical' schools, including hot discussions on the authority of Boerhaave and his works. He notes several doctors who combined with the medical profession that of the ministry. The allusions to the theory of medicine are, however, few. 'People catch ague from being out late nights, and the appropriate remedy is the 'force of a vomit.' On the whole, Hamilton finds his profession in a low state. The doctors in Albany are mostly Dutch, all empirics, having no knowledge or learning but what they have acquired by their experience. A great many of them take the cure of a family for the value of a Dutch dollar a year, which makes the practice of medicine a mean thing, and unworthy of the application of a gentleman. The doctors here are all barbers." Many of the doctors whom he meets are drunken, boisterous, and many others are palpable quacks, such as the greasy thumbled fellow, whom he saw pull out a housemaid's tooth with a great clumsy pair of blacksmith's forceps." Hamilton follows a safe middle course and anticipates modern surgery by saying:—"For my part I know of no way of curing cancer but by extirpation or cutting it out." Although a doctor—any doctor was more interested in men and manners than in medicine—and a special merit of the Itinerarium is the light shed upon the social life of the time by an intelligent observer admitted to the best society of the places he visited, and at the same time taking note of the life of the plain people among whom he passed.

Australasian Medical Congress.

MELBOURNE, OCTOBER 17-26, 1908.

The following is the provisional programme of proceedings:—

SATURDAY, OCTOBER 17.

10 a.m.—5 p.m.—Registration of Members at Town Hall.

SUNDAY, OCTOBER 18.

Morning—Special Service at St. Paul's Cathedral.
Preacher: The Bishop of Tasmania.
Special Service at St. Patrick's Cathedral.

MONDAY, OCTOBER 19.

9.30—10.30 a.m.—Registration of Members in Wilson Hall.
10.30 a.m.—General Business Meeting in Wilson Hall.
6 p.m.—Inaugural Meeting in Town Hall.

TUESDAY, OCTOBER 20.

9 a.m.—Hospital and Museum Demonstrations.
10.15 a.m.—Address in Medicine (Wilson Hall).
11 a.m.—Sectional Meetings.
1.15 p.m.—Lunch at University.
2 p.m.—Address in Pathology and Bacteriology (Wilson Hall).
3.30 p.m.—Garden Party given by the President of the Victorian Branch of the British Medical Association and Mrs. G. A. Syme at "Blythswood," Kew.

WEDNESDAY, OCTOBER 21.

9 a.m.—Hospital and Museum Demonstrations.
10.15 a.m.—Discussion on Hospitals (Wilson Hall).
1.15 p.m.—Lunch at University.
2 p.m.—Address in Public Health (Wilson Hall).
3.30 p.m.—Garden Party given by Mrs. J. F. W. Payne, "Maritimo," South Yarra.
7.45 p.m.—Congress Dinner in the Town Hall, given by Victorian Members to visiting Members.

THURSDAY, OCTOBER 22.

9 a.m.—Hospital and Museum Demonstrations.
10.15 a.m.—Address in Surgery (Wilson Hall).
11 a.m.—Sectional Meetings (University).
1.15 p.m.—Lunch at University.
2 p.m.—Sectional Meetings (University).
9 p.m.—Ball given by the Victorian Officers of the Australian Army Medical Corps.

FRIDAY, OCTOBER 23.

9 a.m.—Hospital and Museum Demonstrations.
10.15 a.m.—Sectional Meetings (University).
(Lunch not provided at University).
2.15 p.m.—Discussion on Syphilis (Masonic Hall, Collins Street).
8.30 p.m.—Reception by the President and Mrs. Allen, at the University.

SATURDAY, OCTOBER 24.

10.15 a.m.—Final General Meeting (Masonic Hall, Collins Street).
Afternoon and Evening—"Henley on Yarra," with a Congress House-boat, where Dr. and Mrs. Maudsley will entertain in the afternoon, and a Committee of Victorian Members will entertain in the evening.

MONDAY, OCTOBER 26.

Evening—Reception at State Parliament House by the President of the Legislative Council and Lady Wrixon.

GOLF.—Members of Congress from other States will be made Honorary Members of the Victoria Golf Club, Port Melbourne. They may become Honorary Members of the Royal Melbourne Golf Club, Sandringham, on the nomination of a Member.

Those desiring to be Honorary Members of Golf Clubs during their stay in Melbourne should communicate with Dr. J. W. Barrett, 105 Collins Street, intimating the date from which, and the number of weeks for which they desire membership.

RAILWAY CONCESSIONS.

VICTORIA: Victorian Members, Holiday Excursion Fare. Members from other States, Single Fares.
NEW SOUTH WALES, QUEENSLAND, SOUTH AUSTRALIA, WEST AUSTRALIA: Single Fares.
TASMANIA: Holiday Excursion Fare.
NEW ZEALAND: Holiday Excursion at 2d per mile.
 These concessions include wife or one lady relative travelling with the member. The necessary forms must be obtained from the Local Secretary.

STEAMSHIP COMPANIES.

P. & O. Company: 15 per cent. on Single or Return Tickets. For Member and Wife or lady relative.
Orient Company: 15 per cent. for Members and their families.
Union Company: 10 per cent. for Member and Wife or Sister or Daughter.
Inter-State Companies: 15 per cent. for Member and Wife.

ACCOMMODATION.—Members should apply direct to hotels, boarding-houses, etc., and are strongly advised to do so as soon as possible. A sub-committee consisting of Mr. A. L. Kenny, Mr. A. N. McArthur and Mr. W. B. Vance (Secretary and Convener, "Leura," High Street, St. Kilda), is collecting information.

LETTERS, INVITATIONS, ETC.—Letters, invitations etc., will be available at the Congress Room, Town Hall, Melbourne, on Saturday, October 17, and at the Wilson Hall (University), on Monday, October 19, and thereafter.

Members should inform the General Secretary or the State Secretary as early as possible by what route they propose to travel and by whom they will be accompanied. The necessary forms must be obtained from the Local Secretary.

A. JEFFREYS WOOD,

Acting General Secretary.
 19 Collins Street,
 Melbourne.

AUSTRALIAN UNIVERSITIES.

SYDNEY.

At the monthly meeting of the Senate of the University, held on July 6th, the Chancellor (Sir Normand MacLaurin) presiding, the examiners in medicine reported that the following candidates passed the final M.B. and Ch.M. deferred examination held last month: Evelyn Elizabeth Dickinson, Henry Joseph Harris, G. A. M. Heydon, C. M. O'Halloran, E. M. Ramsden, Constance M. Rutherford, V. O. Stacy. The Chancellor reported that in terms of the authority given him by the Senate he had conferred the degree of M.B. upon Evelyn E. Dickinson. The following degrees were conferred:—M.B. and Ch.M., H. J. Harris, G. A. M. Heydon; M.B., C. M. O'Halloran, E. M. Ramsden, Constance M. Rutherford, and V. O. Stacy; Bachelor of Arts, L. Vickers. The following examiners were appointed for the forthcoming examinations in medicine and engineering:—Anatomy, Dr. A. A. Palmer; physiology, Professor Stirling; surgery, Dr. C. MacLaurin; and pathology, Dr. G. E. Rennie. Engineering, Mr. J. J. C. Bradfield, M.E. Mr. J. Sulman was appointed to the lectureship in architecture. It was reported that the part of the library which had been left to the University under the will of the late Mr. F. B. Freehill had been received from the trustees of the estate, and it was resolved that a letter of thanks be forwarded to the trustees.

Pure Milk Supply in Victoria.

FROM a report in the Melbourne Age we learn that the inaugural meeting of the Lady Talbot Milk Institute, which has been brought about primarily with a view to making available a supply of absolutely pure milk, took place at the Melbourne Town Hall on June 24th; Dr. G. A. Syme in the chair.

Dr. A. J. Wood, in proposing a motion formally creating the institute, said the need for such a body had long been felt in Melbourne, especially by members of the medical profession, who, through their experiences at the Children's Hospital and elsewhere, realised the utter hopelessness of prescribing for a child suffering from the effects of drinking impure milk, when it was known that that infant would go back to a home only to be given the same adulterated food again. It had been found at the Strauss milk depôts at New York that women who were served with the pure article appreciated its excellence and price, and doubtless a similar feeling would prevail locally. There was no desire, in forming the institute, to under-sell the ordinary milkman; the object aimed at was the provision of pure milk for infants. The institute would also serve as a nursing school for poor mothers, by which means it was hoped to prevent, to a large extent, the unnecessary weaning of children.

Dr. J. W. BARRETT, in seconding the motion, said that in no sense would the institute be antagonistic to the business of dairymen. It was intended to supplement their business and to afford the information that dairymen required in order to produce a pure supply of milk. The retention of infants to the State was, perhaps, from the point of view of the statesman, a vast deal better than the importation of immigrants.

Dr. W. A. WOOD, in moving the adoption of the constitution, said they hoped to help the dairymen, by showing them, by means of practical demonstration, what medical men claimed to be clean, wholesome and "safe" milk for infants, and by recommending to the public such dairymen as conformed with the standard set up by the institute. When medical men were asked at the present time where pure milk could be obtained, they could only shrug their shoulders, because, as far as they knew, an absolutely pure and "safe" supply for infants was not to be had in Melbourne.

Dr. NORRIS seconded the motion. The constitution provided machinery to give adequate effect to the recommendations of the milk committee of the British Medical Association.

Approval of the constitution was confirmed.

The following were elected managers of the institute:—Drs. A. J. Wood and S. Argyle, and Messrs. R. J. Alcock, J. Morgan, Wm. Jamieson and J. C. Syme. Trustees: Dr. J. W. Barrett and Messrs. F. A. Moule and S. Paxton.

Lady TALBOT announced that, in addition to promises of donations received from the trustees of the Wilson (£300), Macpherson (£300) and Felton (£200) estates, she had received word that morning from the Governor-General and Lady Northcote of their intention to subscribe £20 towards the funds of the institute, while Sir Reginald Talbot and she would hand in £110, of which £100 came through a friend who desired to be anonymous.

The chairman added that a letter had been received from the Premier, in which he stated that he would give £250 per annum for two years on condition that a similar amount was raised by the governing body of the institute.

Dr. W. A. WOOD was appointed hon. sec. *pro tem*.

The chairman moved a hearty vote of thanks to Lady Talbot for the energy and zeal she had displayed in the formation of the institute.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of June, 1908:—Registered deaths in the metropolitan municipalities, exclusive of deaths in benevolent asylums, during June numbered 511. This figure has been obtained after distribution to their proper districts of all deaths in general hospitals and hospitals for the insane, and is equivalent to an annual death-rate of 10.78 per 1000 living, or, when corrected by the inclusion of the metropolitan proportion of deaths in benevolent asylums, 11.29 per 1000. Diarrhoeal diseases (diarrhoea, dysentery, and enteritis) caused 26 deaths. Seventeen deaths due to the group of infectious diseases were as follows:—Measles, 1; scarlet fever, 1; diphtheria, 3; typhoid fever, 2; cerebro-spinal meningitis, 1; erysipelas, 2; and puerperal fever, 6. Phthisis, with 37 deaths, cancer, with 35, and bronchitis, with 22, caused average mortalities. Bright's disease, with 21 deaths, was rather lower than usual. Pneumonia caused 51 deaths, which is somewhat above the average. Diseases of the heart and blood vessels caused 104 deaths, an unusually high figure, and the largest number under this head in any single month during the past five years. There were 93 deaths amongst children under one year. This is equal to an infantile mortality of 74 per 1000 births, and constitutes a fairly low figure. The principal causes of infantile deaths were:—Prematurity, 24; developmental diseases, 24; enteritis, 20; pneumonia, 10; and accident, 5. The number of attacks of infectious disease notified was 158, of which scarlet fever contributed 74 cases, diphtheria 57, and typhoid fever 26. One case of plague was notified from Alexandria. The patient was a child, aged 6 years. At the patient's home, a cat, with which the child is said to have frequently played, was found. The animal was removed, and, on examination at the micro-biological laboratory of the State Department of Public Health, was found to have a discharging auxiliary bubo, and to be suffering from plague. Within the boundary of the City of

Sydney, 20 cases of pulmonary tuberculosis were notified under the City Council's by-laws, and 11 premises were disinfected by the municipal authorities after removal or death of the phthisical person.

The Bubonic Plague.—Another case of bubonic plague was recently reported from Alexandria. The patient is a six-year-old lad, residing in Wyndham-street, Alexandria. The little patient was removed to the Coast Hospital, Little Bay, and is in a very serious condition. An officer was detailed by the Health Department to search the locality with the object of discovering the source of infection. Though no rats were caught, a kitten, with which the patient was in the habit of playing, was brought in, and on examination at the Board of Health's laboratory was found to be suffering from plague. Dr. Ashburton Thompson considers that there is no doubt about infected rats being in the neighbourhood, and it is exceedingly unlikely that the kitten should have become infected directly. Subsequently the discovery of a plague-infected rat on premises in Botany-road, between Botany-street and Wyndham-street, removed the uncertainty as to the source of infection of the recent plague cases in that locality.

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, June, 1908:—

Colour	..	..	..	23° Brown.
Clearness	..	..	..	Marked.
Odour	..	..	..	Nil.
Suspended matter	..	..	..	Very slight.
Total solids	..	..	..	8.3000
Chlorine	..	..	..	3.1500
Free ammonia	..	..	..	.0002
Albuminoid ammonia	..	..	..	.0189
Nitrogen as nitrites	..	..	..	.0000
Nitrogen as nitrates	..	..	..	.0040
Oxygen absorbed in 4 hours	..	..	..	.1097
Permanent hardness	..	..	..	1.9
Total hardness	..	..	..	3.25

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during June, 1908:—

Final Effluents from —	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatewood ..	.. Faint	Nil	1.30	12.2	1.365	.139	.038	.785	—	.542	90.5	86.0	No decomposition
Folly Point..	.. Faint	Nil	.84	11.0	1.829	.085	.039	1.011	—	.377	92.9	91.3	„ „
Balmoral ..	.. Faint	Nil	1.82	11.8	1.632	.190	.041	1.485	—	.569	84.7	86.9	„ „

Victoria.

Infectious Diseases.—The infectious diseases returns for the fortnight ending June 27th show, both in regard to typhoid and diphtheria, that the number of cases reported had been below the average of the preceding three years. The figures were:—Typhoid, for the whole State last fortnight, 44; average,

1904 to 1907, 46. Diphtheria, for the past fortnight, 83, average for the previous three years, 90. The scarlet fever cases were above the average of 48 for the previous three years; the number reported for the fortnight was 52.

Care of Consumptives.—The matter of providing for consumptives after leaving a sanatorium was

discussed at a recent meeting of the Board of Health. Dr. Norris stated that the Premier had explained to him that his opposition to the granting of a site for a home for advanced consumptives at Prahran was not due to his objecting to the establishment of such homes, but that he objected to the particular site being used for such purpose. Dr. Norris, in the course of a discussion on the subject, further remarked that it was certain that before long the State would have to consider the establishment of industrial colonies for consumptives who had passed through the sanatorium.

Milk Adulteration.—It was mentioned at the meeting of the Board of Health on July 2nd that 212 samples of milk had been seized for analysis in the metropolitan district since January 1st last, and of these 61 were found to be adulterated. Dr. Norris remarked that, despite the activity of the health authorities, the practice of adulterating milk did not seem to be growing much less.

Abattoirs at Ballarat.—Dr. Johnston, assistant medical inspector of the Board of Health, was recently requested by the chairman of the board to make an inspection of the abattoirs situated around and supplying with meat Ballarat and Ballarat East. His report recommended that the licensee, or occupier, of one abattoir situated at Buninyong be prosecuted under the provisions of the Health Act 1890 for keeping unsuitable and insanitary premises. The report declared that "for a large and important centre like Ballarat, the meat supply, and more particularly the premises used for killing and dressing the carcasses, and the utter lack of meat supervision in any shape or form, can only be described as extremely unsatisfactory." It was suggested that there should be established a central abattoir under municipal control, and under the direct supervision of a qualified meat inspector. The report was adopted.

The Spread of Diphtheria.—Referring to the spread of diphtheria among State school children. Dr. Norris, chairman of the Board of Health, said there could be no doubt as to the value of a regular medical examination of the children attending the schools, provided it were carried out on proper lines. The responsibility of medical inspection rested with the local bodies. The local health officer had power to prevent a child from attending school within twelve months of its recovery from the disease. The great problem in connection with diphtheria, however, was the unrecognised case. Children might have the germs in their throat, and yet not perceptibly suffer from the disease at all, or they might suffer from a mild form of the disease for months without giving visible signs of a serious illness. In either case the mere presence of the germs was just as potent an agency for the spread of infection as if the children were actually attacked by the disease. The Board of Health had suitable appliances for taking specimens of the secretions in sore throats, and these specimens could be examined at the Bacteriological Laboratory. No fee was charged by the board's officers. Last year 1141 specimens were taken, whereas for the seven previous years the average number was below 700.

South Australia.

Health of Adelaide.—The Medical Officer of health reported that during the fortnight ended June 20th two cases of typhoid fever, one of diphtheria, one of scarlet fever, one of erysipelas, and five of pulmonary tuberculosis were notified. The two cases of typhoid

fever were imported from the country for hospital treatment. The case of diphtheria was imported from the suburbs for hospital treatment. The case of scarlet fever was removed to hospital for isolation and treatment. The case of erysipelas was isolated at home. Of the five cases of pulmonary tuberculosis three were imported for hospital treatment. Of the remaining two cases one had left the State and one was at home under the city trained nurse's supervision. The city trained nurse had made 99 visits to 55 cases during the fortnight, and finally disinfected 13 houses. Of the 55 cases under her care one was suffering from typhoid fever, three from scarlet fever, one from erysipelas, one from measles, and 49 from pulmonary tuberculosis.

Queensland.

Plague.—The Deputy Commissioner for Public Health reports for the five weeks ending July 11th:—*Brisbane.*—1. *Plague in Man.*—Case No. 11, referred to in the preceding bulletin died on June 14th. Case No. 12.—R.P., male, aged 17 years, employed in a produce store and resided in Upper Melbourne-street, South Brisbane, took ill on the 7th June instant and was admitted on the 10th idem to the Brisbane General Hospital, where he succumbed on the 14th instant. Diagnosis made p.m., hence not included in bulletin No. 23. During the period 1792 rats and 235 mice were destroyed, 1516 rats and 152 mice were examined, 15 rats were infected.

Far Eastern Association of Tropical Medicine

A CONFERENCE of medical men practising in the Far East was held in Manila on February 27th, to consider the advisability of establishing a society to further the knowledge of tropical medicine, and to promote friendly international intercourse among those whose medical or scientific duties and interests bring them into close contact with the natives of these regions.

The following gentlemen took part in the Conference: Dr. Black (Singapore), Dr. Francis Clark (Hongkong), Dr. Cheng (Canton), Dr. Dudley (Manila), Dr. R. T. Edwards (Siam), Dr. H. Fraser (Federated Malay States), Dr. Paul C. Freer (Manila), Dr. Garrison (U.S. Navy), Dr. Gurney (Philippine constabulary), Dr. Hayward Hays (Siamese Navy), Dr. R. D. Keith (Singapore), Dr. Kitajima (Japan), Dr. J. R. McDill (Manila), Dr. H. T. Marshall (Manila), Dr. W. E. Musgrave (Manila), Dr. Nichols (U.S. Army), Sir Allen Perry (Ceylon), Dr. Pond (Manila), Captain Ryley, R.A.M.C. (Hongkong), Dr. Saleeby (Manila), Dr. Tee Han Kee (Manila), Dr. J. J. Vassal (Annam.)

It was unanimously decided to establish such a society, and the articles of association and by-laws were duly adopted. The Council of the Association will consist of a representative from each component Government, and a representative from each component medical organisation, and it is hoped that during the ensuing year the Governments of Japan, China, Hongkong, the Philippine Islands, Tonkin, Annam, Singapore, the Federated Malay States, Siam, Borneo, Java, Ceylon and other Far Eastern States and Colonies will nominate representatives, and that each medical organisation or branch of such organisation will similarly nominate a representative to serve on the Council of the Association.

It was further decided to organise a Conference every two years, to be held in one or other of the above countries, the first Conference to take place in Manila

early in the year 1910, and Dr. Paul C. Freer, Director of the Bureau of Science of the Philippine Islands, was elected as the first President of the Association. At these Conferences papers will be read, pathological and other scientific exhibits displayed, and the medical, sanitary and other allied institutions and services of the country in which the meeting is held will be thrown open, so far as may be possible, and demonstrated to those attending the meeting.

Each component country will be represented for business purposes by a secretary-treasurer, and there will be a general secretary-treasurer for the Association. Dr. Francis Clark, Medical Officer of Health for the Colony of Hongkong, was elected the first general secretary-treasurer. The subscription was fixed at 10s a year. Dr. Francis Clark's address for the next few months will be the Royal Societies' Club, St. James-street, London, W.

HOSPITAL INTELLIGENCE.

Melbourne Hospital.—The *Age* reports that the building fund of the Melbourne Hospital is to benefit by another large donation towards the erection of a new institution. Mr. James Borrowman, manager of the Trustees, Executors and Agency Co., Limited, has written to the secretary as follows:—"Dear Sir,—We have much pleasure in informing you that the trustees of the will of the late Theodotus John Sumner are setting aside securities representing £20,000 for the purpose of assisting in the rebuilding of the Melbourne Hospital. These securities represent part of the moneys directed by the will of the late Mr. Sumner, to be employed in charitable purposes. The trustees will retain the funds, together with accumulating income, until the moneys are required for the objects named." Mr. John Grice, president of the Melbourne Hospital board of management, said that, under the will of the late Theodotus John Sumner, a proportion of the estate was set aside for charitable purposes. Hitherto, only the income had been distributed. This was the first occasion upon which any of the principal had been set aside for any specific purpose. The money would still be held by the trustees, but would be furnished to the hospital authorities for building purposes as it might be required. The hospital building fund is now of a value of £142,500. Within two months of the signing of an agreement by Messrs. J. J. and E. J. Clarke, architects for the new hospital building, Mr. J. J. Clarke has to start upon a tour of six months in America, Europe and Great Britain to study hospital architecture, with a view of incorporating the latest ideas in the new building. Under the conditions first imposed by the trustees of the Edward Wilson estate, the new hospital building had to be commenced within eighteen months of the date upon which the offer of their great gift was made, 1st April next. It is now known that the hospital will not likely be commenced till about six months later than that date, and to this unavoidable delay the trustees of the Wilson estate have assented.

The sixty-first annual report of the committee of management of the Melbourne Hospital submitted at the annual meeting states that the financial condition of the hospital might, on the whole, be considered satisfactory, for, notwithstanding that the demands on its resources had been excessive, the expenditure has exceeded the revenue by only £336. The total number of patients treated in the institution during the year was 26,558, including 5333 in-patients and 21,225 out-patients and casualty cases. Of these, 223 in-patients and 297 out-patients

were old age pensioners, 136 were consumptives, 168 cancer cases, 1104 police cases, and 245 in-patients and 626 out-patients were children under 15 years of age. During the year the institution had been, for most of the time, overcrowded. The committee points out once more that the institution should not be placed in the position of having to receive large numbers of consumptive patients. Out of 136 of these cases received during the year 49 died. This high death-rate indicated that when admitted the patients were in a very advanced and hopeless stage of the disease, and the committee felt that to devote to incurable cases the beds of a great general hospital was to exclude other sufferers for whom permanent good might be done. Another serious objection to the continued admission of these cases lay in the direct menace to other sufferers. In view of these facts the committee had permitted the continued admission of consumptives only under protest, hoping that their continued appeals would result in other provision being made for them. The provision made by the Government for these cases for the whole of Victoria was as follows:—Austin Hospital, 122 beds; Macedon Sanatorium, 60 beds in summer, 30 in winter; Green Vale Sanatorium, 80 beds; total, 362. The Echuca Sanatorium was closed in 1907, and the Invalid Home at the Quarantine Station on June 30th last. Considering the fact that there were 1213 recorded deaths from consumption in Victoria in 1906, an increase of 194 on those of the preceding year, this provision was altogether inadequate. The committee hopes that the friends of the institution and all interested in the cause of the sick and suffering will use their best endeavours to bring about a condition of things more creditable to the State from a humane point of view and more desirable on behalf of public safety.

Women's Hospital, Melbourne.—A contract for the erection of new buildings has been entered into for the sum of £11,933. They are to be finished in nine to ten months, and, together with the pathological block just erected, will become portion of the complete scheme for a new women's hospital recently adopted by the committee on the design of Messrs. J. J. and E. J. Clarke, who were the successful competitors in connection with the same. The out-patients' department, facing Grattan-street, will contain a large waiting-hall, on one side of which will be a vestibule leading to four dressing-rooms and two large examination rooms. Between these there will be an ante-room for surgeons and students, whilst on the opposite side of the waiting-hall will be the dispensary and an office for the nurse in charge of the waiting-hall. Off this there will be the house surgeon's reception room. The nurses' quarters will face the future quadrangle. On one side there will be a large sitting-room, with writing-room, and on the other side a sitting-room for sisters. Forty-eight separate bedrooms will be provided for sisters and nurses, with ten bathrooms, ample lavatories and fire escapes. Over the waiting-hall and dispensary there will be a roof garden, partly roofed in. The new buildings will be of brick, faced with stone and on a bluestone plinth. The foundation stone was laid in the centre of the Grattan-street façade by the Lady Mayoress of Melbourne, prior to her departure for Europe. This building is the result of the Lady Mayoress's appeal to the women of Victoria, which, together with the special grant towards the appeal from the Government, amounted to over £11,000.

Launceston Hospital.—At the monthly meeting of the hospital board, held on June 18th, the report of the finance committee showed that the receipts for May were £321 17s 3d from fees, making a total from that source of £2221 13s for the eleven months, or an

increase of £206 4s 6d on the receipts for the corresponding period of the preceding financial year. The amount received from the Government during May was £375, bringing the total receipts up to £896 17s 3d. The expenses for the month amounted to £650 7s 3d. During the month 137 patients were admitted and 136 discharged, and there were eight deaths. Of the patients admitted 70 were placed on the free list. The vacancy in the honorary medical staff, caused by the resignation of Dr. L. S. Holmes, was filled by the appointment of Dr. Newell, on the casting vote of the chairman. At this juncture Dr. J. M. Pardey said he hoped that when Dr. Newell's appointment had been confirmed he would perform his duties. Previously some members of the honorary staff had not done so. Proceeding, he made certain charges with regard to the nursing staff, in the course of which he stated that directions had been issued to nurses, by which the honorary medical officers were inconvenienced and belittled. Nurses, he said, had received instructions from the matron to take no orders from honorary officers. If honoraries entered the wards in the absence of members of the resident medical staff the sisters were to go round with them. If the resident officers came into the ward they were, in that case, to leave the honoraries and attend upon the residents, and, on the other hand, they were not to leave the residents and go to the honoraries. Dr. Pardey objected also to the practice by which a certain number of beds were allowed to the resident medical officers. After some discussion, a sub-committee was appointed to deal with the whole question of the relations existing between the resident and honorary staffs. Surgeon-superintendent Dr. Ramsay strongly claimed that he should be represented on the committee, and this was conceded. Subsequently, however, it was pointed out that all the committees had to be composed of members of the board exclusively, and that Dr. Ramsay could not be granted the representation he desired. Dr. Irvine directed the attention of the board to the friction existing between members of the nursing staff, and pointed out that several sisters were leaving the institution. The chairman having offered some remarks by way of explanation, the matter was referred to a sub-committee, already appointed, for investigation and report. The chairman announced that a bequest of £254 had been received from the estate of the late J. Ralston, of Eyandale. Out of five applicants for the position, Dr. Sweetnam, formerly junior house surgeon, was appointed house surgeon in succession to Dr. Hayward, resigned.

Coast Hospital, N.S.W.—During the month of May 296 patients were admitted. Of these 185 were general cases, and 111 were suffering from infectious diseases, consisting of scarlet fever, 50; diphtheria, 46; erysipelas, 2; bubonic plague, 1; enteric fever, 10; and measles, 2. The daily average number was 331.64. The number of patients discharged was 338, of whom 300 were cured, 34 relieved, and 4 unrelieved. There were 12 deaths. The number of patients remaining in at the end of the month was 301, consisting of 188 general cases and 113 infectious. Of the latter 54 were suffering from scarlet fever, 42 diphtheria, 4 erysipelas and 13 enteric fever. By ambulance 111 patients were removed from the city to the Coast Hospital, and 18 to asylums for the infirm. Eleven patients were transferred to convalescent homes.

Alfred Hospital, Melbourne.—In a recent report to the treasurer on the Alfred Hospital, the Inspector of Charities, Mr. T. Short, stated that there appeared to be some privileges accorded to patients paying the full average cost of maintenance. As class-

distinctions are not permitted in subsidised institutions, this practice should be stopped, and the treasurer notified it has been done. The matter was referred to the hospital managers for attention. The secretary said the only privileges extended to full paying patients were that they were accommodated in the small wards, and their friends were permitted to visit them daily. Their diet was the same as that of other patients. He estimated a loss of at least £200 a year by the withdrawal of these privileges. Patients sometimes entered the hospital, agreeing to pay 10s or 15s per week, but on learning that by increasing the amount to 30s per week they would be accommodated in the small wards and their friends permitted to see them any afternoon, they would somehow see their way to pay the full amount. The following motion was carried:—"That in future no special privileges be allowed to paying patients, and that a letter be forwarded to the treasurer to that effect."

Infectious Diseases Hospital, Hobart.—An agreement has been reached concerning the Infectious Diseases Hospital in Hobart after much controversy, at a meeting held on June 12th. It was moved and carried—" (1) That, subject to the approval of the Chief Health Officer, the Hobart local authority shall construct, equip, and maintain the infectious diseases hospital. (2) That the interest and sinking fund on the total cost shall be borne by the Hobart local authority and the local authorities of New Town, Queenborough, Clarence, and Glenorchy, in proportion to their population. (3) That each local authority outside the city shall pay for all cases sent from its district to the hospital at rates to be fixed by the parties to the agreement." And further:—"That, on condition the Hobart Corporation gives the municipalities a general indemnity against negligence and mismanagement of the hospital, the municipalities do not require any representation on the board of management. That the fee for each patient from the contributing municipalities be a fixed charge of £4 4s. That if at any time it is necessary to enlarge the hospital by direction of the Chief Health Officer, the cost of such enlargement and equipment shall be divided amongst the various municipalities according to population."

The ceremony of laying the foundation-stone of the Launceston Children's Hospital took place on June 10th. The original fund was initiated in Jubilee year, 1887, and in the interval it has nearly doubled itself by accretions in the shape of interest. The £405 has grown to £706, exclusive of an advance of £94 made to the hospital board. The committee has still to raise something like £700 in order to be in a position to complete the building. There will be two main wards, affording accommodation for 24 patients. The drainage of the building will be of the most modern and scientific character. The material which has been adopted is cambrated concrete.

OBITUARY.

We regret to record the death of Dr. Stockwell, the late Medical Superintendent of the Dunwich Asylum, Queensland, which took place on June 18th. The late Dr. Stockwell, who was a native of Musselburgh, Midlothian, N.B., was born on August 5th, 1838, being the youngest of three brothers, each having joined the medical profession. He took the degree of L.R.C.P. and S.E. at Edinburgh in 1866. His first practice was at Balfron, in Stirlingshire, but he was induced to go to the East, and finally settled at Hongkong, holding

several Government appointments there. After some years he joined his wife and young family in Scotland, and elected to remain there for some time. He came to Queensland in the nineties, taking a Government appointment at Thursday Island for a time. He was appointed Medical Superintendent at Dunwich in 1901, and held that position until recently. Although he had been most anxious to obtain a country hospital since leaving Dunwich, he was appointed to the Mitchell Hospital just too late. He leaves a widow, three sons, and one daughter. The late Dr. Stockwell was particularly open-hearted, and his death will be deeply regretted by a wide circle of sincere friends. The remains were interred at Dunwich, in accordance with his expressed wish, the cortege comprising a very large section of the officers and inmates of the institution.

MEDICAL NOTES.

Professor Anderson Stuart's Testimonial Fund.—A fund has been initiated for the purpose of providing some suitable testimonial to Professor Anderson Stuart, who has completed 25 years' work as Dean of the Faculty of Medicine in the University of Sydney. Subscriptions are invited from all the students of the Sydney Medical School and from the profession generally, and they may be sent to Dr. W. G. Armstrong at the Sydney Town Hall, or Dr. J. F. Flashman, at the Medical School.

The Health of Children.—In connection with the recent inquiries into the physical condition of children, the first of a series of parents' meetings was held at the Waterloo Town Hall, Sydney, when Dr. Roth delivered a lecture as to the best means to be adopted for the improvement of the physique of children. The Mayor of the municipality presided, and seated on the platform were the mayors and aldermen of Redfern, Alexandria, and North Botany, Mr. Board, Under-secretary for Public Instruction, and Mr. Dacey, M.L.A. Dr. Roth, in an address lasting about two hours, dealt with nearly all the ailments that children were subject to, and he gave valuable advice to parents how to treat the different troubles as they arose.

Victorian Friendly Societies' Funds.—Representatives of Victorian friendly societies recently formed a deputation to the Premier, and asked that the Government should accept the investment of the societies' funds, and pay them four per cent. interest upon the money. The funds of the Victorian societies amounted to £1,700,000. Sir Thomas Bent said that the Government did not want any money for the next five years, and even then it would not want very much. He would recommend the Cabinet to give them 3½ per cent. on the money.

Victorian Trained Nurses' Association.—A meeting of the Victoria Royal Trained Nurses' Association was held on July 2nd at the Austral Saloon. The chair was occupied by Dr. Felix Meyer. An admirable display of physical culture exercises were given by the pupils of Miss Webb. After an exhibition of general exercises and an incidental address on the advantages accruing on physical culture, Miss Webb called in a second bevy of pupils to illustrate special exercises for the reduction of flesh and the building up of the same, according to the requirements of the individual. Dr. Meyer, in the course of some remarks, observed that physical culture induced a free, courageous bearing in girls, which indicated a fine, open heart. This fearlessness was brought about by the introduction of

good blood into the organs by means of judicious exercise. It was necessary, however, to remember that physical culture might be overdone, and it was eminently desirable that it should be taught by properly qualified teachers.

The Deniliquin hospital committee has approved of the architect's plans for the erection of the new infectious diseases wards, the existing premises being altogether inadequate for the requirements.

The Newington College (Sydney) Old Boys' Union held their annual dinner and smoke concert at Baumann's rooms on July 7th, when over 100 old Newingtonians were present. Dr. H. Russell Nolan presided. The principal toast of the evening, "The School and the Union," was proposed by Dr. George Hurst, and responded to by the headmaster on behalf of the school, and Dr. Nolan for the union. A musical programme was contributed by various members.

The Scots College (Sydney) Old Boys' Union held its annual dinner at the A.B.C. rooms on July 5th, about 45 members being present. The president, Dr. E. D. Sparke, was in the chair. The toast "The College" was proposed by Mr. S. G. Jones (who was present at the opening of the college by Lord Jersey in 1893), and responded to by the Rev. A. A. Aspinall. "The Union" was proposed by Mr. Mack Walker, and responded to by Dr. Sparke, the president. Amongst others present were Dr. A. J. Aspinall, Dr. Geo. Bell, Jas. Watt, E. C. Norrie (hon. secretary), Alex. Stafford (Wollongong), S. G. Jones, and E. O. Yeagher.

The municipal council of Cobar, N.S.W., has declined to allow samples of food to be taken by the sanitary inspector for analysis by the Department of Health, on grounds of expense. An alderman stated that foodstuffs condemned elsewhere were being sent into the country. He considered the council should guard people, and stated if the truth were known the many cases of gastric fever in Cobar arose from the use of articles unfit for consumption.

Charitable Donations and Bequests.—Mr. Septimus Miller has forwarded a cheque for £1000 towards the building fund of the Melbourne Hospital. Mr. A. S. Chirnside, of Corangulac, near Colac, Victoria, has forwarded a cheque for 1000 guineas towards the fund for building additions to the Colac Hospital.

PERSONAL ITEMS.

At the last meeting of the Western Suburbs Cottage Hospital committee, a resolution of condolence with the widow and family of the late Dr. M. W. Traill was carried, and it was decided to honour the memory of the late surgeon by placing his enlarged photograph in the institution, in recognition of his great work for the institution.

Dr. R. H. Strong, of Collins-street, Melbourne, has filed his schedule in the Insolvency Court. The insolvent states that the cause of his insolvency is an adverse judgment in the Supreme Court, having been obtained against him on December 31st, 1907.

Dr. Thomas S. Davies, of Lockhart, N.S.W., was successful in his recent action against John T. Cornell for slander, and was awarded £10 damages.

At the last meeting of the board of directors of Sydney Hospital, leave of absence for twelve months

was granted to Dr. Ronald Pope. Dr. E. A. D'Ombrian was appointed hon. assistant ophthalmic surgeon to act during Dr. Pope's absence.

Dr. J. L. Beeston has been appointed a member of the New South Wales Legislative Council. He has practised his profession in Newcastle and district for many years, and has identified himself with local affairs. He has served as president of the New South Wales Branch of the British Medical Association, president of the Newcastle Medical Society, as hon. secretary of the Medical Board of the Newcastle Hospital, and, since 1901, he has held office as president of the Newcastle Agricultural Association.

Dr. L. W. Roberts, of Cowra, N.S.W., has disposed of his practice to Dr. R. N. Wawn, of Melbourne, and leaves for England at an early date.

Dr. C. M. Davidson, of Rockhampton, has returned to Brisbane after spending an enjoyable holiday in China.

Dr. L. W. Bond has resigned his appointment of assistant medical superintendent of the Hospital for the Insane, Goodna, Queensland.

Dr. Douglas Shields has left Melbourne for a short trip to America, with Sir Reginald Talbot's party. Dr. Shields, after landing at Vancouver, intends paying a flying visit to Ottawa and New York.

Miss Margaret Jamieson, M.B., B.S., has been awarded the University Scholarship in Physiology, 1908, University of Melbourne.

The following gentlemen have been appointed to the Commission of the Peace:—South Australia.—Charles Hurst Chancellor, M.D., of Gladstone; Frederick William Niesche, M.D., of Adelaide. New South Wales.—Robert Beith, M.B., Kiama; Harry Charles Rickard Bell, M.B., Coolah; Thomas William Watkins Burgess, L.R.C.P., Wagga Wagga; Hubert Roger Cope, M.B., Glen Innes; Esca Morris Humphery, M.B., Lismore; William Digan Langton, M.B., Castlereagh-street, Redfern; Alexander Livingstone Kerr, M.D., Granville; Herbert Lethington Maitland, M.B., Liverpool-street, Sydney; Allen Muscio, M.B., Emmaville; Walter Alexander Ramsay Sharp, M.B., Candelo; Rudolf William Louis Schuette, M.D., Merriwa.

Dr. Dawson, of Pahiata, N.Z., has left for England on a holiday trip. Dr. Todd, of Invercargill, is acting as *locum*.

At the Launceston General Hospital, Tasmania, recently, Dr. Heyward, house surgeon, who is severing his connection with the institution, was presented with an inkstand by the general staff, and a small bacteriological outfit by the past and present dispensers. The presentation was made by Dr. Ramsay, the surgeon-superintendent, who, on his own account, added a portfolio. Dr. Heyward had held the position eight years.

Dr. Clark, after some five years' residence there, is leaving Franklin, Tasmania. The practice has been taken over by Dr. Cummins, of Evandale.

The Council of the New South Wales Branch of the British Medical Association desires to express its sympathy with Dr. T. Sydney Davies, L.R.C.P. (Edin.), L.R.C.S. (Edin.), L.F.P.S. (Glas.), of Lockhart, New South Wales, on the trouble and expense to which he has been put in order to vindicate his professional status against false assertions, and congratulates him on the successful issue of the action which he brought in the Supreme Court.

MEDICAL APPOINTMENTS.

VICTORIA.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz:—

Yuille, William Douglas, L.R.C.P. Metropolitan. vice John Johnston, M.D., resigned.

White, Douglas Oakley, M.B., South-eastern, vice Rupert George St. John Naylor, L.R.C.P., relieved.
McLay, Robert Galloway, M.B., North-western, vice William C. Theed, M.B.C.S., resigned.
Hicks, John Henry C., L.R.C.P., South-western, vice Cecil F. Tucker, M.B., resigned.
Fankhauser, Herbert W., M.B., South-western, vice D. W. H. Mackie, M.B., resigned.

The following persons to be Officers of Health for the districts set opposite their names respectively, viz:—

Manly, Richard Augustus Aloysius, M.B., Shire of Wyndham, vice William Spalding Laurie, M.D., resigned.
Jamieson, Douglas Dunbar, M.B., Shire of Wannon (Coleraine and Nareen Ridings), during absence of Samuel Connor, M.D.
Pollock, John, M.B., port of Port Phillip, vice James Couper Johnston, M.B., deceased.

SOUTH AUSTRALIA.

The following appointments have been made in the Adelaide Hospital for a term of three years from July 1st, 1908, viz:—
Honorary Gynaecologist: James Alexander Greer Hamilton, M.B., L.R.C.S. Honorary Assistant Gynaecologist: William Alfred Verco, M.B., B.S.; Honorary Bacteriologist: Thomas Borthwick, M.D., Ch.M. Honorary Assistant Bacteriologist: Henry Herbert Ernest Russell, M.B., Ch.B., F.R.C.P. Honorary Assistant Physician: Edward Angus Johnson, M.D., Ch.D., M.R.C.S., L.R.C.P. Honorary Assistant Surgeon: Charles Edward Todd, M.D., M.R.C.S., L.R.C.P. Honorary Assistant Physician to the Consumptive Wards: Charles Henry Reissmann, M.D., M.R.C.P., M.B.C.S.

Cowan, Frank Gladstone, M.B., to be a Public Vaccinator for the district of Angaston.

QUEENSLAND.

Buchanan, J. D., to be Assistant Medical Superintendent of the Hospital for the Insane, Goodna.
Oborn, Dr., to be Superintendent of the Mitchell Hospital.

TASMANIA.

Newell, John Adrian, to be Hon. Medical Officer of the Launceston General Hospital, vice L. S. Holmes, resigned.
Sweetnam, Herbert William, to be House Surgeon at the Launceston General Hospital, vice W. B. Heyward, resigned.

NEW SOUTH WALES.

Lee, H., M.B., Ch.M., to the Hon. Medical Staff of the Western Suburbs Cottage Hospital, Sydney, vice Dr. Traill, deceased.
Frizell, J., M.D., to the vice-presidential staff of the Northern Suburbs Cottage Hospital, Sydney.

NEW ZEALAND.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz:—

Barron, Richard Dunlop, M.R.C.S., L.R.C.P., Opunake, vice Dr. Morrison.
Bewes, Edward Anstis, M.R.C.S., L.R.C.P., Tauranga, vice Dr. Frazer-Hurst.
Henderson, Albert, M.B., M.S., M.D., Te Awamutu.
Stewart, Alexander, M.B., C.M., Te Aroha.
Seville, George Edward, L.S.A., Morrinsville.
Stuart, Thomas, M.D., Tauranga.
Hastings, John Patrick, M.B., Ch.B., Dunedin.
Ramage, Adam, L.R.C.P., L.R.C.S., vice Dr. W. A. Wheeler, Kaikoura.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:—

NEW SOUTH WALES.

Boyd, Perceval Crawford, L.R.C.P. (Edin.), 1879; L.R.C.S. (Edin.), 1879.
Smyth, Edward William, M.B., B.S. (Edin.), 1902.
Bottrell, Edwin Horace, M.B. (Syd.), 1908.
Levis, Jas. Miles Sterling, L., L.M.D., 1901; R.C.P.I., L., L.M.D., 1901; F., 1904; R.C.S.I., D.P.H., L.R.C.P.S.I., 1904.
Foley, John Hamilton, L.R.C.S. (Irel.), 1883; L.R.C.P.I., 1885.
Pearse, Wm. Henry, M.R.C.S. (Eng.), 1897; L.R.C.P.L., 1897.
Howse, Cyril Beresford, M., 1894; F., 1905; R.C.S., (Eng.) L.R.C.P. (Lond.), 1894.
Wawn, Royle Newton, M.B., 1906; B.S., 1907.
Kidd, Leslie Stuart, M.B., 1905; B.S., 1908.
Alti, Selim Nicolas, M.D. (Univ. Paris), 1894.

Additional Registration.

Flecker, Hugo, Ch.m. (Syd.), 1908.
Jones, Philip Sydney, Ch.M. (Syd.), 1901.

TASMANIA.

Ridley, Sidney Frederick, M.B. (Melb.), 1905; Ch.B. (Melb.), 1906.
Smellie, William, M.B., Ch.B. (Glas.), 1904.

QUEENSLAND.

Wallace, Robert, M.B., Ch.B. (Glas.), 1905.
Griffith, Ada Isabella Valentine, M.B., B.S. (Melb.), 1905.
Tipping, Frank, B.M. (Melb.), 1907.
Junk, David, B.A., M.D. (Irel), 1886; M.A.D. (Irel), 1886.
Minchin, Edward James, L.R.C.S. (Irel), 1884; L.R.C.P. (Irel), 1884 (Dublin).
Also, Thomas Osmond Fabian, M.R.C.S. (Eng.), 1874; M.B., M.S. (Edin.), 1874.

BIRTHS, MARRIAGES, AND DEATHS

BIRTHS.

BARKER.—June 20th, to Dr. and Mrs. W. Herbert Barker, of Kew, Victoria—a son.
BISHOP.—June 25th, at "Fintona," Lyons-street, Newstead, Victoria, to Dr. and Mrs. Bishop—a daughter.
BLACKALL.—June 29th, 1908, at Killard, Queanbeyan, N.S.W., the wife of Dr. P. Blackall—a son.
COOKE.—June 24th, at Bimera, Fourth Avenue, St. Peters, Victoria, to Dr. and Mrs. W. Ternent Cooke—a son.
HART.—June 14th, at Minalton, S.A., to Dr. and Mrs. Hart—a son.
NEWLAND.—June 6th, at Morpeth Vale, S.A., the wife of Clive Newland, M.B., M.R.C.S.—a son.
PAIN.—June 26th, 1908, at Cairo, Egypt, the wife of E. Maynard Pain, M.B.—a daughter.
SMITH.—June 30th, 1908, at Lister, Rosebank-street, Darlinghurst, Sydney, the wife of Dr. Eric Smith, of Brewarrina, N.S.W.—a son.
STUCKEY.—June 15th, at Inverell, N.S.W., to Dr. and Mrs. F. S. Stuckey—a son.

MARRIAGES.

BOURKE-QUARRELL.—June 18th, 1908, at Richmond, N.S.W., James J. F. Bourke, L.R.C.P.I., etc., eldest son of the late Miles Vernon Bourke, M.D., Limerick, to Gertrude Mary, youngest daughter of Robert Quarrell, Oxton Downs, North Queensland.
FOXTON-CATER.—June 23rd, at Bowen Hills, Brisbane, Harold Vernon Foxton, M.B., B.S. (Melb.), eldest son of Colonel the Hon. J. F. G. Foxton, C.M.G., M.P., "The Priory," Indooroopilly, Queensland, to Mary, second daughter of Captain and Mrs. George Cater, "Stoneleigh," Bowen Hills.
JONES-MASON.—April 30th, at Manly, Sydney, Lincoln Jones, M.B., to Daphne May, only daughter of Mr. Alfred Mason, Manly.

DEATHS.

BENNETT.—July 11th, at Strathfield, Dr. F. A. Bennett, of Morpeth, N.S.W., in his 47th year.
BISHOP.—July 3rd, at "Fintona," Lyons-street, Newstead, Victoria, Beatrice Marie (Cissie), dearly loved wife of A. E. Kemp Bishop, M.B., and second eldest daughter of B. T. and the late Daniel McLean, Newstead, Victoria, aged 26 years.
FITZGERALD.—July 8th, at sea, on board the s.s. Wyreema, between Townsville and Cairns, Queensland, Sir Thomas Fitzgerald, C.B., F.R.C.S.
HART.—June 14th, at Minalton, S.A., Lillian, beloved wife of Dr. Hart.
STOCKWELL.—On June 17th, at Warwick, Queensland, James Stockwell, M.D.
REID.—June 20th, at Sale, Victoria, James A. Reid, M.D., aged 57 years.

BOOKS RECEIVED.

Manual of Medical Jurisprudence, Toxicology and Public Health. By W. G. Aitchinson Robertson, M.D., D.Sc., F.R.C.P., F.R.S.E. Number of pages xii + 560, with 39 illustrations. Price, 8s net. London: Simpkin, Marshall & Co., Ltd. 1908.
Public Health Laboratory Work. By H. R. Kenwood, M.B., D.P.H., F.C.S., and W. G. Savage, M.D., B.Sc., D.P.H. Fourth edition. Number of pages xiv + 468. Demy 8vo. Price, 10s net. London: H. R. Lewis.
Cape of Good Hope University Calendar for the years 1908-1909. Handbook of Medicine and Therapeutics. By Alex. Wheeler, L.R.C.P. & S.E., and W. R. Jaell, B.Sc., M.D., F.F.P.S.G. Third edition. Price, 8s net. Edinburgh: E. & S. Livingstone, 1908.
The following three books have been received from Messrs. Baillière, Tindall & Cox., Henrietta-street, London. Mr. L. Bruck, Sydney:—
1. A Manual of Diseases of the Eye. By C. H. May, M.D., New York, and Claud Worth, F.R.C.S. (Eng.). Second edition. Number of pages xiii + 400, with 336 illustrations, including 22 coloured plates. Demy 8vo. Price, 10s 6d net.

2. The Treatment of Gonorrhoea in the Male. By C. Leedham-Green, M.B., F.R.C.S. Second edition. Number of pages xii + 160, with 47 illustrations. Demy 8vo. Price, 5s net.
3. Physical Signs of Diseases of the Thorax and Abdomen. By J. E. H. Sawyer, M.D. (Oxon.), M.R.C.P. Crown 8vo, with 32 illustrations. Price, 5s net.
American Practice of Surgery. Edited by Joseph D. Bryant, M.D., and A. H. Bruck, M.D. Vol. iv. New York: Wm. Wood & Co.; Sydney: L. Bruck.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. Cyril Shepherd, Sydney; Dr. Richard Jones, Victoria; Messrs. John Sands Ltd., Sydney; Dr. Cribb, Millthorpe, N.S.W.; Dr. T. Fiaschi, Sydney; Mr. G. T. Taylor, Hobart; Messrs. Felton, Grimwade & Co., Melbourne; Dr. C. L. Handcock, Ashburton, N.Z.; Dr. C. E. Williams, Mackay, Q.; Dr. P. Fiaschi, Sydney; Dr. A. E. Martin, Perth; Mr. L. Bruck, Sydney; Messrs. Clarke, Son & Platt, London; Dr. J. B. Gunson, Adelaide; Dr. A. B. Brockway, Brisbane; Dr. E. S. Jackson, Brisbane; Dr. H. Laurie, Melbourne.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-refined oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is cresote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 323.

SYDNEY, AUGUST 20TH, 1908.

VOL. XXVII., No. 8.

THE EARLY DIAGNOSIS OF PLAGUE.

By J. S. Purdy, M.D., C.M. (Aberd.), D.P.H. (Camb.),
F.R.G.S., District Health Officer, Auckland, N.Z.,
late Medecin Adjoint du Conseil Sanitaire,
Maritime et Quarantenaire d'Egypte.

LET me say at the outset that there is no symptom actually pathognomic of plague. There are certain characteristics of the disease, however, even from a clinical point of view, which warrant a reasonable suspicion that one has to deal with a case of plague. When one is actually in the midst of an epidemic, especially in a country where the disease is endemic, certain symptoms and appearances are so impressive as to make one almost certain that one has to deal with a case of true plague. Even then, however, there are cases which can only be definitely diagnosed by an examination of the blood or tissues with the help of a good microscope, and resource to the making of cultures and animal inoculations in the laboratory. I have worked with men who, as a result of considerable experience, seemed to have acquired what one might term almost an intuitive perception of the disease. I noticed, however, that occasionally, especially when cases had not occurred for some months, that even these men, "like even the youngest of us," as J. M. Barrie is so fond of saying, were liable to err. One can, therefore, dogmatically affirm that any diagnostician who labels a case as anything more than suspicious of plague, merely on clinical evidence, lays himself open to the chagrin of having his diagnosis upset the event of further investigation. The ultimate definite diagnosis of plague rests with the microscopist and bacteriologist. It is fortunate, therefore, not only for ourselves but for amateur jurists that such comprehensive generic terms as "virulent septicæmia," perhaps with the qualifying statement of the bubonic* type either exist or are easily conjured up by jugglers in philology, or those who hesitate to call a spade a spade. The question naturally arises, "On what combination of clinical evidence can one reasonably suspect the presence of plague?" The

existence of fever, a swelling in the right groin, with enlargement of a femoral gland or glands, where there is no obvious cause for such enlargement, such as an abrasion or sore lower down the limb, is to my mind a case which should immediately arouse a suspicion as to the possibility of plague. Especially is this suspicion warranted if therewith you have of wakefulness, *the absence of rigors*, and a lassitude, frontal headache, vomiting, aching of the limbs, vertigo, drowsiness, with intervals of wakefulness, *the absence of rigors*, and a peculiar facial appearance, making the features drawn and haggard, with the pupils dilated, and a general expression of anxiety and fear; anorexia, a rapid rise of temperature to 102° or 103° Fahr., with acceleration of pulse and respiration, a skin dry and burning, tongue with a creamy fur which rapidly dries and becomes brown, intense thirst, and extreme prostration; the presence of a distinct bubo, with infiltration of the tissues, painful to touch—the size of a walnut or larger. If with this you find the epitrochlear glands are not enlarged, I submit that the diagnosis of plague is one within the bounds of reasonable probability. In 70 per cent. of cases such is the typical appearance of a case of plague. In three-fifths of the cases, that is in 60 per cent., such a bubo or buboes develop within 24 hours of invasion. In most text-books you will find a reference to a prodromal stage of physical and mental depression, anorexia, aching of limbs, feeling of chilliness, giddiness, palpitations, and sometimes dull pain in groin at the seat of the bubo. With the exception of the last symptom I do not think that there is anything in these prodromal signs sufficiently definite to distinguish the disease from many others of microbic origin. In seven-eighths of the cases the bubo or buboes are on one side of the body. In the rest of bubonic cases they appear simultaneously on both sides of the body. Next to the groin the axilla is the most frequent site of buboes, according to Sir Patrick Manson, 20 per cent. In children, however, a common site is at the angle of the lower jaw, said to be 10 per cent. of cases. Other types of plague which have received special names, such as the septicæmic, have no special enlargement of lymphatic glands

* At the inquest on the first of the two Auckland cases the jury were reluctant to use the word plague, and brought in a verdict of "virulent septicæmia of the bubonic type."

during life, although invariably they are found to be enlarged and hyperæmic generally throughout the body at the necropsy. In these cases the course of the disease is rapid, the patient prostrated, although the temperature may not rise above 101°, and hæmorrhages are frequent.

Pneumonic Plague.—The distinguishing feature from an ordinary pneumonia is that the sputum is not viscid and rusty, but profuse and watery. At the same time there is cough, dyspnoea, hurried breathing, delirium, and almost invariably the patient dies on the fourth day. Rigor, intense headache, vomiting, general pains, fever and intense prostration, with moist râles at the bases of the lungs are all given as symptoms. Unless, however, the patient has come either from a plague-infected country, or there is reason to suspect possible contact with other cases, or a history of other sudden deaths from pneumonia, it is always possible to overlook such cases unless microscopic slides are made of the sputum. With regard to pestis minor or abortive plague, where buboes form which may suppurate or resolve with little or no fever, such cases only are suspicious in places where there is a possible prospect of plague having been either introduced or endemic. It is such cases as these that call for careful investigation and require watching. In a place like Auckland, where plague has been actually demonstrated, if there is no reasonable theory to account for the bubo, a bacteriological examination is necessary.

I suppose some experiences of my own whilst in the Quarantine Service of Egypt might be of interest. The first cases of plague which I saw were shown to me by Dr. Orme, the resident medical officer of the Egyptian Government Hospital, Port Saïd. They were all cases of the bubonic type, and, with two exceptions, occurred in natives. The first case was that of an Austrian woman from the poorest quarter of the European town, with the typical femoral bubo and symptoms similar in every respect to those mentioned above, and on all fours with the second recent case in Auckland. After that from time to time I saw other cases, some of which resembled the first, others slightly different. In some cases, mostly those which recovered, and with a less distinctive appearance, the *B. pestis* was not found. These were merely classed as suspects. Whilst working at the large quarantine camp at El Tor, where during two months we had 33,000 pilgrims returning from Mecca under observation with the view

of preventing the introduction into Europe of plague, yellow fever, smallpox, and cholera, one was able to realise the difficulties in certain cases of eliminating the diagnosis of plague. One morning a cadaver, brought into the mortuary simply covered with streaks and ecchymoses, which one of my *confrères*, Dr. Bertram Barnet, who had the benefit of much experience in Hong Kong, would have taken odds was a case of plague, on examination by Dr. Armand Ruffer, the President of the Hedjaz Quarantine Board, was found to have died of septic peritonitis. In another case which we had isolated, and on the diagnosis of which depended the momentous question of the declaring of the pilgrimage *brut*, and the institution of stringent regulations throughout all the various countries interested in the Hedjaz pilgrimage, I remember our bacteriologist, Dr. Gottlich, consulting me during his investigations. We concluded it was not plague. In this case there was an enlargement of the femoral glands almost as big as a goose's egg. Guinea-pig experiments proved negative. As a matter of fact, afterwards I cut out the whole mass of glands. The case made a good recovery. I remember another time putting a ship in quarantine at Port Saïd after consulting our director, an Italian, Dr. Billeli, a keen diagnostician with 22 years' experience of plague. This was a case of a fireman with a femoral bubo, who after a good deal of examination had passed the Suez boarding medical officer. After leaving Suez he developed a temperature and other symptoms sufficiently suggestive of plague to warrant us removing him to the Lazaretto as a suspect. However, repeated examinations by myself and later by our bacteriologist, Dr. Zirolia (one of the first to find *B. Pestis* in the stomach of a flea), showed that this was not a case of plague. Probably it was, as our *confrère* at Suez, Dr. Vay, had diagnosed a case of localised tubercular adenitis. I remember also a large P. & O. liner coming through in quarantine, owing to two cases of pneumonia having been taken off at Suez, there having been a death from pneumonia on the voyage, and the preliminary microscopic examination of the sputum having suggested the possibility of plague. Before this ship arrived at Marseilles the diagnosis proved negative, and although rigid examinations would be made there and at London, you can realise that the discomfort to the passengers and the loss to the shipping company—although probably calling down curses on the service—were at least

warranted by the fact that had the cases proved positive and precautions not been taken, no one could say how much mischief might have been done.

The most frequent differential diagnosis that has to be made, more especially in quarantine work, is the elimination of the diagnosis of syphilis. In this respect I always used to make a strong point of examining the epitrochlear glands. Whilst resident for a year at the London Lock Hospital I found that in this disease, except where mercury had been taken for a considerable period, there was almost always distinct enlargement of these glands. In plague, on the other hand, the epitrochlears and trochlears are seldom implicated. The roseola of secondary syphilis can also be very distinctly seen when viewed through Cobalt glass as demonstrated by M. Julien, of Paris, and my former mentor in London, Mr. Arthur Shillito.

Whilst in South Africa I came across many cases of swellings of glands and buboes which it was sometimes difficult to diagnose. This was more especially noticeable in the Bushveldt, and I came to the conclusion that in some cases at least it was due to the large thorns which so often struck fairly deep. I remember Dr. Dawson, of Tenui, who was with the Seventh N.Z. Contingent, drawing my attention to the same subject one day whilst we were camped near each other, within a short distance of the Pongola Bush. I maintained then that there was always an obvious cause for the enlargement, and still think that they were due either to the effect of thorns or the bites of insects, such as pediculi, from which few of us escaped. However, I have met medical men who assert that there are tropical buboes and firemen's buboes, directly arising in the latter from their work and not of microbic origin. But such cases are always capable of some more scientific explanation without unduly taxing the imagination of the bacteriologist.

With regard to the prophylaxis of plague we now know definitely that the flea is the intermediary between rat and rat as well as rat and man. It is of importance especially to those connected with hospital administration to realise that plague is not an infectious disease in the same sense that smallpox or scarlet fever are.

No special plague hospital is therefore required. It merely suffices to put a case in an observation ward and then disinfect all clothing and see that a vigorous crusade is carried out against rats and fleas. In Auckland we

have had much success in mitigating the nuisance from rats by the plenteous use of "Common Sense Rat Exterminator," an importation from Toronto. Being a firm believer also in petroleum as a prophylactic, and having repeatedly demonstrated that it kills fleas quicker than 1 in 20 carbolic, or even 1 in 100 corrosive, acting on my suggestion the Chief Sanitary Inspector of the City Council had the whole building swabbed out with six tins of kerosene. Thus, although in the same building where two girls took ill within two days of each other and died within three days, both typical cases of bubonic plague, there were many others working, and actually a rat with natural plague was found under the floor, parts of the place also revealing a shocking state of neglect and filth, owing possibly to the prompt measures taken to evacuate the building, and the plenteous use of petroleum, Auckland has not had another case.

A vigorous crusade has been pursued in the city with regard to sanitation. The Harbour Board is co-operating with the City Council in the destruction of rats. We expect in the near future to see the numerous local bodies also merged into a Greater Auckland and a comprehensive drainage scheme introduced. Thus with the erection of rat-proof wharves, the introduction of the excellent écrans or rat guards in use on the Suez Canal, two of which have recently been imported from Egypt, the wiping out of some old buildings which are giving place to fine ferro-concrete structures and a progressive policy of sanitary reform, together with a persistent crusade against rats and fleas, there is not much likelihood of plague ever establishing itself in Auckland. At certain seasons of the year, however, if garbage is not systematically removed, should an infected rat from overseas get a footing we may have a sporadic case.

It says much for the clinical acumen of Dr. Ferguson, a young Victorian practitioner who had previously only seen one other case in hospital, that he was able to diagnose this little outbreak in Auckland, a city in which it requires the tragic incident of two deaths in rapid succession with typical symptoms, combined with a complete chain of bacteriological investigation and much straight talking of "horse sense," to persuade a jury to bring in a verdict even of "virulent septicæmia of the bubonic type." One indignant gentleman at the inquest told me that he was willing to be inoculated with the cultures. He did not, however, accept an

offer to accommodate him. I was amused a few days later when a "death agent" called at our office, and in advocating the advisability of re-insurance for myself mentioned that the individual in question, one of the unfortunate sufferers financially from the evacuation of the building, had taken out a policy shortly after he knew that the two deceased girls had succumbed to plague.

I have been in one or two tight corners in different parts of the world, but have seldom had to face more irate or indignant people than a very few of those who were suddenly notified that they must leave their place of business at a few moments' notice. When I went into bondage in Egypt, although still finding corn there, unlike Benjamin of old I did not find any silver vessels in my sack, yet my experiences there and in Sinai stood me in good stead on coming back to God's country, which, by the way, has not yet evolved angels, although the conditions of life are probably better than anywhere else on earth. However, if we manage to keep the lovely city between the Waitemata and the Manukau, second not even to Sydney for scenic beauty, from becoming infected from the last named, my sojourn in Auckland will not be in vain.

(Read before the Auckland Branch of the
British Medical Association.)

P.S.—Since the above was read in Auckland last May, the report of the Plague Commission in India has been published. An excellent summary of this, taken from Major Lamb's pamphlet on "The Etiology and Epidemiology of Plague," is:—

1. Pneumonic plague is highly contagious. It is, however, rare (less than 3 per cent. of all cases), and plays a very small part in the general spread of the disease.

2. Bubonic plague in man is entirely dependent on the disease in the rat.

3. The infection is conveyed from rat to rat and from rat to man by means of the rat-flea.

4. A case of bubonic plague in man is not in itself infectious.

5. A large majority of plague cases occur singly in houses. When more than one case occurs in a house, the attacks are generally nearly simultaneous.

6. Plague is usually conveyed from place to place by imported rat-fleas, which are carried by people on their persons or in their baggage. The human agent not infrequently himself escapes infection.

7. Insanitary conditions have no relation to the occurrence of plague, except in so far as they favour infestation by rats.

8. The non-epidemic season is bridged over by acute plague in the rat, accompanied by a few cases amongst human beings.

It is also interesting to note that Dr. Turner, Executive Medical Officer of Health, Bombay, publishes excellent results in the prevention of plague by the use of pesterine, a bye-product from the destructive distillation of petroleum shale.

ON RESECTION OF PORTION OF THE LIVER.

By Thomas Fiaschi, M.D., Ch.D. (Pisa and Florence),
Hon. Surgeon, Sydney Hospital.

ONE of the recent and most successful advances of surgery has been the resection of considerable portions of the liver for the removal of neoplasms. Already as far back as 1899, W. W. Keen, of Philadelphia,¹ had brought up to date a table of 76 cases of resection of the liver for hepatic tumours as found in medical literature. Last of these was a remarkable case of his, in which almost the whole of the left lobe of the liver affected by carcinoma had been removed successfully, and the hæmorrhage controlled by means of the thermo-cautery. The greater part of these cases had been dealt with by using the thermo-cautery, or by bringing the tumour out and treating it extra-peritoneally. Only a few surgeons had dared to trust to ligatures, as the general impression was that ligatures cut through the liver substance and were ineffective. The mortality in these 67 cases was 14.9 per cent.

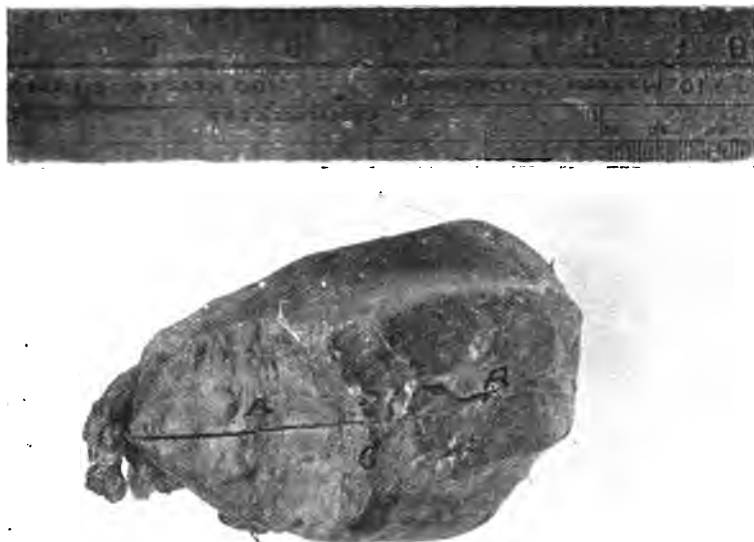
A great encouragement to surgeons was given in 1896 by Kusnetsoff and Pensky, and in 1897 by Auvrier, who demonstrated that hepatic vessels are just as strong as those of any other part of the body, the veins being even stronger than the arteries, so that if the ligature is tightened slowly but firmly it holds just as well as on other vessels. At the same time Kusnetsoff introduced a special blunt needle, which penetrates the liver substance without perforating the blood vessels, and a special intra-hepatic suture.

In 1905 T. S. Cullen, of Baltimore,² added other 17 recorded cases to Keen's table, with a mortality of 11.1 per cent., and in 1907 he brought forward a new liver needle, which, instead of being wedge-shaped on cross-section as that of Kusnetsoff, was much more flat, more slender and longer. This needle, though based on Kusnetsoff's principle, is in practice a great improvement, especially when dealing with thick portions of the liver, in cases where much bleeding is expected,

such as resections of large portions of the liver.³

Since then two important papers on this subject have appeared—one by Professor Garré⁴ of Breslau, and the other by Professor Willy Anschütz,⁵ also of Breslau. These give 20 cases of resection of the liver performed in Breslau with only one death. This occurred in a case in which a Bilroth pylorotomy had been performed at the same time as the resection of the liver, and the death was directly due to the former. However, even accepting this death, the mortality for this Breslau series is 5 per cent., a marked progress. These 20 resections of the liver were done for the following conditions:—

with moderate tightness, two of Doyen's elastic stomach clamps, for the purpose of controlling temporarily the hæmorrhage during the operation. To tie all vessels visible on the face of the liver section with very fine silk (0000 Pearsall's). If difficulty is met in seizing the vessels with pressure forceps, tie them by means of a circular suture. Before releasing Doyen's clamps, pass on each side of the section some No. 3 catgut sutures threaded through liver needles; then, when the clamps are removed, bring the two sections together in close opposition, but without tying too tightly. Anschütz has in some of his cases instead of liver needles used a Deschamps' blunt broad ligament needle. By



Tumour of Liver. Microscopical diagnosis, gumma. A, left section; B, right section; C, apex of triangle where two sections converge. Transverse line is section made by pathologist.

Tumour of the liver, three cases; advancing gall-bladder cancer, three cases; gastric cancer with liver metastasis, one case; irreducible umbilical hernia, including portion of liver, one case; hydatids, seven cases; cholecystitis, with intimate adhesions of gall-bladder to the liver due to ulceration and perforation of gall-bladder on the side of the liver, five cases.

These two papers of Garré and Anschütz are notable for the advocacy of simple means to control liver hæmorrhage, means that a surgeon can find available in every operating-room. In removing a neoplasm of the liver Garré recommends, as follows:—To resect, if possible, a wedge-shaped portion of the liver, as it is easier after to bring together the two raw surfaces. To apply on each side of the wedge,

the use of these simple means very little hæmorrhage will occur, and the abdominal wound can be closed without any drainage. Anschütz, in addition, recommends in cases where much bleeding is expected, such as resections of large portions of the liver, a preventive intra-hepatic ligature surrounding the wedge to be resected. Each loop of this ligature should include from one to one and a-half centimetre of liver tissue, and should be tied with a steady strong continuous pull. He also recommends in cases where it is difficult to bring the liver well down into the wound, to divide the falciform and triangular ligaments. This greatly mobilises the liver. If by these means a good access to the affected part of the liver is not obtained, Anschütz recommends osteo-plastic resection

of the costal arch according to William Meyer's method.⁶

I have carried out these suggestions in the two following cases:—

First Case.—A married woman, 31 years old, was admitted to the Sydney Hospital, complaining of a swelling in the abdomen. Had a good family history, and had always enjoyed good health, with the exception of having miscarried three times. No history or stigmata of syphilis present. The swelling had first appeared in October, 1907, and felt then as a large hen's egg, and had gradually grown to the present size of a cricket ball. Slightly tender on pressure and occasionally painful. No vomiting; no jaundice. Patient can eat ordinary food. There has been some loss of weight.

The tumour was quite visible in epigastrium, and moved with respiration. It felt smooth and rounded. On percussion over it, a dull note was elicited, which was continuous with the liver dulness. The diagnosis was doubtful—either a hydatid or a tumour.

On February 6th, under ether, the abdomen was opened in the middle line. A solid, round tumour was seen in the left lobe of the liver, having adhesions to the stomach and omentum. These were carefully separated. Not being sure about the nature of the growth, I resolved to remove it. The falciform ligament was divided through for three inches. This enabled us to bring the left lobe of the liver well down and out. Two Doyen clamps, protected by indiarubber, were applied to each side of the growth, so as to include a triangular portion of the liver. This was cut out with a scalpel, and all the visible vessels were tied with 00 Pearsall's silk, as I had not been able to procure 0000. I then passed with Cullen's needles five No. 3 catgut sutures through both sides of the section outside the clamps. These were removed, and on drawing together the sutures, the two sides were brought together, and the sutures knotted, beginning from the apex and finishing at the base on the lower edge. Very little hæmorrhage occurred. The abdominal wound was closed in layers. Very little pain or general disturbance followed, and the patient made a rapid recovery. Dr. S. Jamieson has since examined the growth, and pronounced it to be a gumma. Needless to say, energetic specific treatment has been carried out. The patient at the present time is quite well.

Second Case.—A girl, 18 years old. She had been quite well until she began to suffer

with pain in her back, and three weeks later consulted Dr. Digan Langton, who found a tumour in the right side of the abdomen, and had her admitted to the Sydney Hospital.

Two abdominal tumours were found, both cystic and round. The larger one, in the right hypochondrium, continuous with the liver, and extending down to the umbilical equator, moved with respiration. The other was found in the hypogastric region, just over the urinary bladder. The diagnosis was hydatid.

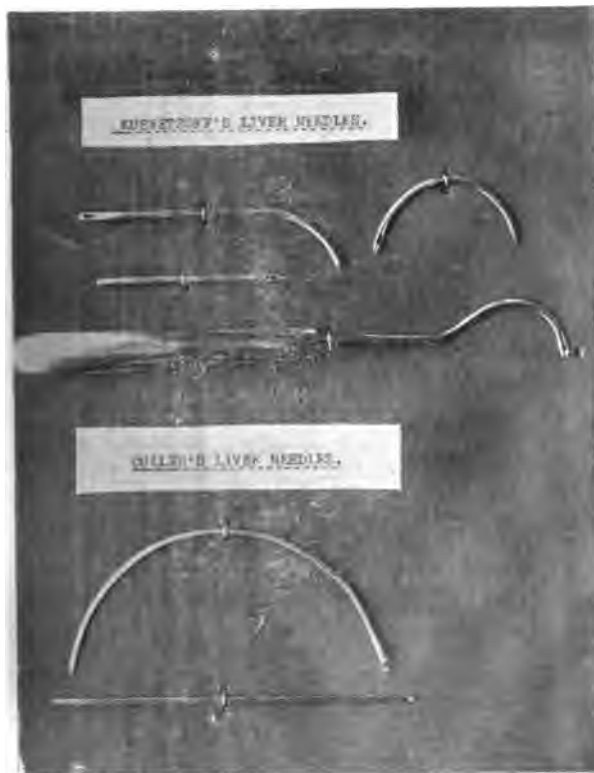
Under ether the abdomen was opened about



Hydatid of Liver removed intact, with portion of Liver resected, marked A.

one inch to the right of the linea alba. Two hydatid cysts were found, one springing from the gastro-hepatic omentum, and the other from the right lobe of the liver. I decided to remove radically both, without opening them. The first was carefully stripped from its adhesions to the omentum and stomach, a small portion of the gastric serosa coming away with it. This little rent was carefully united with a continuous Lembert suture. The other hydatid was embedded in the edge of the right lobe of the liver, and, after detaching carefully all adhesions, a triangular

piece of the edge was caught with Doyen's clamps, and excised together with the hydatid. A few vessels in the liver were caught with mosquito forceps and tied with 00 Pearsall's silk. The divided edges were then brought in close apposition by two No. 3 catgut sutures, by means of Cullen's needles. No hæmorrhage to speak of. I closed the wound, and patient made a splendid recovery, without any pain to speak of. Three weeks later, on May 28th, I removed the omental hydatid in the hypogastric region, in the same radical way, without puncturing it, and she is now quite well.



Before operation and during the after-treatment both patients were given urotropine in 5 gr. doses three times a day. I mention this because the use of urotropine in all cases of liver operation is a great help, as it prevents infection of the biliary ducts. Crowe's investigations have proved "*that hexamethylenamine given by the mouth appears in the bile, cerebro-spinal fluid, synovia, fluid, saliva, pleural effusion and blood of men. If given in sufficiently large doses, 75 grains per diem, it appears in the bile in quantities which suffice to exercise a decided bactericidal action.*"

These recent improvements in the technique of liver surgery open a large field to surgeons. Not only can malignant tumours of the liver itself (which before were left to run their fatal course) be given a chance of recovery, but cases of cancerous gall-bladders or of cholecystitis, so adherent to the liver that a clean stripping of the gall-bladder from it would be attended with much hæmorrhage, can be now easily and safely removed by excising with them a small wedge of the liver. Furthermore, a large proportion of hydatids of the liver can now be excised radically, and without any risk to the patient of subsequent grafting of hydatids due to the soiling of the peritoneum from hydatid fluid.

[NOTE.—Owing to some remarks made during the discussion on this paper, I will add that Crowe gives 75 grains of urotropine per diem when he intends to obtain a rapid bactericidal action on the bile. With that dose all micro-organisms disappear in the gall-bladder in 24 hours, "*but smaller doses, if continued for a longer period of time, may prove equally efficient.*" Hæmaturia may occasionally follow the administration of hexamethylenamine, but this symptom rapidly disappears on withholding the drug. "*In no case was a gastro-intestinal disturbance set up, and even after 80 grains a day for 15 days the appetite remained good, the bowels regular.*" My son Piero has verified these conclusions of Crowe. He has collected bile discharged from various biliary fistulæ in patients who were taking urotropine in such small doses as 15 grains per diem, and had the bile examined by Mr. Mutter, an expert analytical chemist, who invariably obtained the formaldehyde reaction. My own experience, gathered from various cases of gallstone operations, is that the administration of urotropine, even in the doses of 15 grains a day, is distinctly beneficial.]

1. Annals of Surgery, July-December, 1899, vol. xxx, page 267.
2. The Journal of the American Medical Association, 22nd April, 1905, page 1245.
3. Surgery, Gynecology and Obstetrics, May, 1907, page 573.
4. Surgery, Gynecology and Obstetrics, September, 1907, page 311.
5. Archiv für Klinische Chirurgie, 1907, page 335.
6. The Journal of the American Medical Association, 8th October, 1906, page 1069.
7. Johns Hopkins Hospital Bulletin, April, 1908, page 118.

(Read before the New South Wales Branch of the British Medical Association.)

Attention has been directed to the trial leave system for lunacy patients by the recent appearance before the North Melbourne Court of a patient who had been released on trial leave to the care of his friends. The Inspector-General of the Insane states that generally the system works very well, as the department does not give a certificate of discharge until certain that a cure has been effected. It is the intention of Dr. Jones to recommend the establishment of a convalescent home for patients who are recovering from mental affections.

AXIS TRACTION FORCEPS *v.* TELEPHONE AND MOTOR CAR.

By J. Kynaston Couch, M.D., Gynaecologist to Out-Patients, Perth Public Hospital, W.A.

THE object of my paper this evening is to offer a protest to the almost universal interference on the part of our profession in the normal powers of parturition. Although I have specified one instrument only, I wish you would accept it as representative of many others, such as curettes, Hegar's, Bossi's, perforators, cranioclasts, craniotribes, etc. Well, I will commence by telling you this year I am of age as an accoucheur, as it is 21 years this month since I attended my first confinement in Seven Dials, London.

The text-book of the course was the first edition of Galabin, then just issued. Up to this time Playfair was the book of the London medical student. In the first ten years of my practice we did not have the advantages of the telephone to allow us to remain in bed until the last possible moment, or motor cars to take us to a case in a few moments, or even the useful bicycle, but it was practically the rule, once in the house, it was a case of waiting until the stranger arrived.

During this period we never washed our hands prior to making an examination, and a little lard or butter on a saucer was the usual lubricant provided. If instruments had to be used, and up to this time it was considered the exception, and not the rule, to use them, it was considered sufficient, if they were placed in a jug of hot water to warm them, and either carbolic or Condy was added to the same, to sterilise them. In making a vaginal examination, we were always instructed never to expose the patient, but to feel always for the vulva, and, as a guide, we were specially told to pass the finger over the anal cleft until we found the septic canal dimple, passing our finger still further forward until we entered the vagina. The doctor was recommended to examine every few pains, after the membranes had ruptured, and to keep on worrying his patient, if she did not worry him by her importunities for chloroform.

Sairey Gamp.—These were the days of dear old Sairey Gamp, a very stout, unwieldy septuagenarian, who usually kept pressing her patients' loins during the pains, and in the intervals related all the harrowing details of her own numerous confinements, of the pre-Malthusian period, not forgetting to relate all the domestic details of the different patients

she had recently attended. Many a time have I seen nurse and patient take nips from a small bottle, usually kept under the pillow. Very patient, as a rule, very motherly in her ways, and always sympathetic. A few words about her costume: She usually wore a fancy cap, decidedly the worse for many years' wear, a dark flannel apron, with stains of meconium and liquor amnii, many days since it left the tub, and usually a dark print or woollen dress. Her nails were long, and an extensive soil under them, which was never disturbed by digging. Her hands were never washed during a labour, but were wiped on anything handy. This dear old woman's hands were fairly free from contamination, as she scrubbed the floors and did the week's washing at the tub at home. I certainly think this one day's washing was the saving of many lives, as by it she removed the traces from all the last week's cases. In fact, Sarah knew very little about midwifery, but she certainly could wash the babies.

Twentieth Century Nurse.—I am glad to see that a Midwives Act is being introduced into Western Australia; and a very different class of woman is the modern trained nurse; she is young, active, particularly clean, well trained, and takes a great interest in her profession, and it is always a source of pleasure to me to discuss an obstetrical diagnosis with her. She is certainly not so motherly in her sympathy, but she undoubtedly is a great friend to the doctor, and has been well trained in asepticism. There was a great outcry by the conservative medical profession when the Midwives Act was introduced at home. It was said that a new body of irregular practitioners was going to be formed, and we were going to lose some of our work. But such has not been the case, and they really have proved of the greatest assistance to the medical man.

Having now rapidly reviewed the changes that have taken place in the nursing profession, I should like to premise that my remarks this evening, I trust, will not be so contorted that they refer to cases of malpresentation and contracted or flattened pelves, where we are all agreed interference is absolutely necessary.

Standard of Morbidity.—I should like also to define the term "morbidity" as applied to a lying-in-woman, as it is a term which will occur frequently in this paper. The B.M.A. standard, laid down in 1905, is: "Any woman who has a temperature above 100° between 8 a.m. and 5 p.m. from the second to

the tenth days." I have been in a large family practice since my hospital days, and during all these years I do not remember a single case of septicæmia which had arisen in a case attended solely by a nurse. I know of several where the doctor who had been called in to deliver had subsequently tried to blame the nurse. Now what I am going to do in this paper is to prove to ourselves that we should first take the motes out of our own eyes before we blame the nurses. "In these days, in spite of the far greater use of antiseptics and the infinitely better-trained nurse, do we find that puerperal morbidity outside a lying-in hospital is less than what it was in the days of Sairey Gamp." I regret to say I do not think so. Let us discuss the cause. Let me premise by saying that since the days of Adam and Eve confinements are physiological, not pathological, processes. They are purely acts of nature. A woman in her wild state can do everything herself, like the females of the animal kingdom. When art steps in, it converts a physiological process into a pathological one. I am sure we all remember leaving cases and taking away a great deal of *kudos* from loving husbands and young fathers for the wonderful work in doing what nature had kindly done for us. Nature ought to get the credit for driving the baby into the world while we have been looking on.

Uterine Douching.—For many years past, ever since the writings of Semelweiss, medical men have been devising schemes to lessen the morbidity which far too often followed a parturition in a lying-in hospital; and I remember as one of the means to bring this desideratum about we were instructed to douche the vagina before, and the uterus after, the birth of the child, ignoring the fact that nature had done so since Eve's accouchement. First of all the vagina is douched by the forewaters, then it is brushed by the child distending it, then douched by the hind waters, and last swept out by the placenta and membranes. But even here our interference may cause the liquor amnii to drain away before the child is born. We often are recommended to use antiseptics in our douching solutions, such as perchloride of mercury or carbolic acid. What good can they do? They cannot be used strong enough to kill one germ. I remember two cases which I salivated with perchloride. One I remember very well. It was a very difficult forceps case, and I caused a lot of trauma about the upper vagina,

and two puerperal ulcers developed; hence I douched four times a day with 1 in 1500 perchloride, causing ptyalism and profuse diarrhoea. If a vaginal or uterine douche is required, let it be of saline, as it only has to act mechanically, not chemically. Even in this case we are always careful to use boiled water, but even this seems like straining at a gnat and swallowing a camel when we do not boil our hands.

Methods of Examining a Patient.—What are the present methods of examining a lying-in woman? They are: abdominal examination, pelvimetry, auscultation, and vaginal examination. Ten years ago I began to study the Rotunda methods of abdominal examination by their four grips, and to depend less and less on the findings of vaginal examination. Many women die as a result of vaginal examination through septic infection. There would be no cases of acute sepsis in previously healthy women if there were no vaginal examinations. There are many facts which can be determined by abdominal examination which cannot be determined by vaginal examination, and very few which can be determined by vaginal examination alone. What are these exceptions? The most important is the diagnosis of prolapse or presentation of the cord. Other points are the size of the os, the presence of intra-pelvic tumours, of fontanelle presentations and asynclitism of the head. We are recommended to make as few examinations as possible, and the leading accoucheurs only make two—one on their arrival, to ascertain these points, and if the waters have already ruptured, or only rupture when the head is low down, there is no occasion to examine further. If, however, they rupture when the head is high up they make a second examination to ascertain if the cord is prolapsed or expressed. I can usually tell the progress of the child through the pelvis by Pawlie's and the pelvic grips without any vaginal examination. I can diagnose from abdominal examination the position of the child correctly in 80 per cent. of my cases. What a change has come over the method of performing a vaginal examination, as in Edgar's last book there are pictures of women being examined on their backs, with the vulva exposed, and care being taken to open the labia with the other hand. Our hands are washed and sterilised, and I consider it absolutely wrong to examine a woman without wearing sterilised rubber gloves. Let us consider for a moment where

our hands go in the course of one day's general practice—the granulating wounds we have to dress, the mouths, recta and vagina we have to examine, etc., etc. We all take care to sterilise our forceps, our catheters and curettes, by boiling them in a proper steriliser or fish kettle;—what about our hands? Do we all sterilise them before we make a vaginal examination? I am afraid we do not. The present-day nurse is always ready with her bottle of tabloids but not with a clean nail-brush. I always take a new cheap nail-brush to every midwifery, and for five years I have hardly made an examination without using boiled gloves. The old Sairey Gamp never introduced her fingers inside the cervix; she did not know where it was, and, as I previously remarked, the head brushed out the passages in its descent after her examinations. Very different to the practitioner whose hands go everywhere, and I think the greatest risk comes from the surgeon who does not wear gloves, and of course chloroform and instruments enable the parts to be vaccinated with any poison which may be on his fingers. I maintain that wherever possible rubber gloves should be worn whenever any vaginal examination has to be made on a lying-in woman.

I will now explain the title of my paper, "*Axis Traction Forceps versus Telephone and Motor Car.*"

In the higher ranks of society a doctor is usually engaged to attend a midwifery. Why, once more, are his services retained? I am sure it is a great waste of energy on his part to wait hours attending a normal labour, and this combined with the patient's clamouring for chloroform the attendant is tempted to put on forceps long before they ought to be used. I am not referring to cases where the head is in the first position and near the outlet in a multipara and pains are good, where there is very little risk of more trauma with forceps than without, but I am referring to those cases where the head is high up and not rotated, called the high forceps operation. Childbirth is a natural process. In all the lower animals and among savages it is finished without help. Why, then, cannot civilised women have babies without a doctor's presence? All that the doctor does is to tie and cut the cord and possibly express the placenta. He cheers the patient, tells her everything is well, and thus removes or lessens fear. He usually towards the termination of a case administers an anæsthetic, but this is not obstetrical work. With a

pelvis of normal size, a child of normal size, healthy passages, and a normal presentation, there can be no mechanical hindrance to normal midwifery.

Sagittal Suture.—In making a vaginal examination, we all know how difficult it is to ascertain the direction of the sagittal suture when the head is only in the upper part of the basin, especially if the woman is on her side. May I suggest placing her on her back, as the pelvis slopes towards the centre of the bed when we examine her on her side. If we learn to palpate the abdomen correctly, the direction of the sagittal suture will soon confirm which oblique diameter the head is in, and the posterior fontanelle always indicates how far the head is flexed. In one case which I attended in Perth I recognised that there was sufficient room for the passenger, and I allowed the patient to remain five days and a half in labour, with intervals for sleep, with a perfect result for mother and child. The os took this time to dilate, and as the membranes had not ruptured, I had no cause for alarm. An axiom I always teach my midwifery class is, as long as the waters have not ruptured, no harm can come to either mother or child. Weak pains may make the labour long, but they bring with them no sort of risk.

Forceps.—One tip in the use of forceps, which ought to be more generally known, I read in a letter published by the late Milne Murray a week before his death, is, "do not tie or screw the handles together; they cannot slip off the head if applied properly. A large number of children die from meningeal hæmorrhage from this squeezing, and many frequently are born in a condition of asphyxia pallida, and die shortly after birth."

I am sure that axis traction forceps are far more useful than the ordinary variety. I have used Milne Murray's first pattern for many years; I bought his last pattern, but I think they are too complicated.

Now, when should we use forceps. I will only refer to the conditions which should be present before they are applied. I quote from Jellett: (1) The greatest diameter of the head should have passed the brim. (2) The os must be fully dilated. It is scarcely ever necessary to extract a head through an incompletely dilated os. If this is done, laceration is almost certain to result, and we are never certain how far a laceration once started may extend. If we must deliver by the forceps when the os is only semi-dilated,

the cervix should be incised bilaterally, and thus laceration avoided. (3) The membranes must be ruptured. If they are not ruptured, and they are included between the forceps and the head, we may detach the placenta. I find it is very difficult to recognise with gloves that the waters have ruptured, and for many years past I have used Ferguson's speculum to ascertain this fact by visual inspection. (4) The rectum and bladder must be emptied.

I do not propose entering into the indications for the proper use of forceps, as this alone is a subject sufficient for an evening's discussion. The object of my paper is to offer a modest protest to the universal habit of interfering with the oldest accoucheur in the world, mother Nature, and especially the application of forceps before they are really required.

Eighteen months ago I saw a patient who had been confined a few months previously, very anæmic; she had a badly lacerated cervix, and extending into both broad ligaments, there was marked thickening from cellulitis, a long scar extending along the right border of the roof of the vagina from the right fornix to the vulva, also a perineum which had been sewn up. Now, previous to her confinement, she had been a strong, healthy woman, and she had an average-sized pelvis; the child was stillborn, thanks to the squeezing of the forceps. In fact, the woman was a perfect wreck. Undoubtedly it had been a case of right occipito post, with the forceps applied before the cervix was fully dilated, and then a very strong pull. Art had tried to do what nature can do, and usually does, if she had been left alone. I have had a very large number of cases of right occipito post, and have always regretted my interference.

Pelvimetry.—How many of us use a pelvimeter, so as to know with a fair amount of accuracy what size pelvis we are dealing with.

I well remember a case in which, thanks to my forceps and the impatience of the mother, the child on two occasions was stillborn. On the third occasion, however, I had just bought a pelvimeter and I persuaded the patient to do all the work herself. This she did, and a living child was the result. I had ascertained that the pelvis was normal, and patience, not forceps, was wanted.

I know of another case where a practitioner had used forceps on two occasions, and the children were stillborn; so at the third

pregnancy he brought labour on at the seventh month; this also was unsuccessful; the fourth was successful at term, thanks to patience not forceps, and the pelvimeter which I used.

Auscultation.—I can always hear the foetal heart with a wooden stethoscope on my naked ear, but I have always failed to hear it with either a binaural or a phonendoscope. I think this is the reason why so many men never examine for it, as they had failed at first with the two last mentioned instruments.

Bossi's Dilators.—I have only used Bossi's dilators on one occasion; a friend of mine bought the instrument when they were first introduced. It was a prolonged first stage. In this case the poor woman got sepsis, thanks to Bossi, a worrying husband, an importunate patient, and last, but not least, myself.

I have performed every variety of obstetric operation, from simple low forceps to Cæsarean section, but I have not performed symphysiotomy or pubiotomy.

Cranioclasm.—I have had a craniotribe for five years, but have not used it. I had previously perforated and delivered by cranioclasm on four occasions. I am sure on reviewing these cases they must have been occipito and posteriors, and I cannot help thinking if I had left 50 per cent. alone they would have delivered themselves.

Version.—I had one unfortunate case of rupture of the uterus while doing a version in a very stout woman of 19 stone. She died in three days after the accident.

Ante-partum Hæmorrhage.—During this period of 21 years I have seen five deaths from ante-partum hæmorrhage in my own practice and that of others. One was a case of concealed accidental hæmorrhage, two of external accidental hæmorrhage, one from placenta prævia.

Placenta Prævia.—A few words about the rule-of-thumb treatment of placenta prævia, turn and deliver. I quite agree this is very good treatment if there is active hæmorrhage, but how often have I seen the foetus turned in the absence of bleeding and dragged out directly afterwards, instead of turning and leaving the expulsion to nature. It seems to be the rule if there has been any ante-partum hæmorrhage, although it has ceased, we must interfere. I have often asked why? I have never seen a serious case of post-partum hæmorrhage. I have carried a Horrock's transfusion set for about twelve

years in my midwifery bag, and I have only used it on four or five occasions.

Gonorrhœal Infection.—As bearing on the few cases which occasionally arise when we cannot blame the nurse or ourselves, I would like to mention this case. I was engaged to attend a fine healthy woman, a primipara, and the child was coming into the world as I arrived. I had no trouble with the placenta. I remarked to the mother that she ought to make an absolutely perfect convalescence, as she had had no vaginal examinations, when, two days afterwards, the child developed conjunctivitis, and in five days the mother acute salpingitis, which laid her up for three months; this was due to her husband's recent gonorrhœa, and not to either nurse or doctor.

The Placenta.—As students, we were taught never to let the uterus go from the time the child was born to half an hour after it was delivered. We were told then to keep the woman on her side, and to use the left hand, to keep on squeezing the uterus for 20 minutes; then we were to give it a hard squeeze, and to continue this process until we had delivered the placenta. I remember the large number of women that used to dread the delivery of the placenta far more so than that of the child. No doubt in many of these cases we used to compress and squeeze a full bladder as well as the uterus. But it was always a painful process for the woman.

Nowadays, thanks to the description one reads of Credé in the Rotunda methods, we hardly cause any pain at all, and we also turn the woman on to her back to prevent the admission of air.

I should like to mention a case which I have attended in the last six months. It was a case of slight placenta prævia, and abdominal examination showed me the child lay in a left dorso anterior position; this I turned by internal version, and the mother completed the work of delivering the child. I waited for an hour and a half for the uterus to drive the placenta into the vagina. All the symptoms of its having done so, such as lengthening of the cord, elevation of the fundus, increased mobility of the fundus, were wanting. What did I do? Well, I suppose you would say, as my hand was gloved, as it was, I would have extracted it. I did nothing of the kind; I went home to bed, and on calling the following day, was told it came away four hours afterwards,

In another case, I was sent for two hours

after the birth of the child to express a placenta; a well-trained nurse had failed to express it; she did not notice that the bladder was full, and all the time she had been trying to do Credé she had been squeezing the woman's bladder and giving her great pain. A catheter was passed, and I expressed the placenta quite easily.

In the first case, that is, where the placenta came away by itself, I left it because of my experience three years ago in two cases. I introduced my gloved hand in each case, and in the two I had mild attacks of septicæmia. One was laid up for five weeks and the other three. In both of these I had the advantage of a highly-trained nurse, and I could find no fault in my technique, beyond the fact that I did what I had no business to do, viz., to introduce my gloved hand after passing through a vagina into a clean uterus. If in these cases I had gone away and allowed nature to drive the placenta out, I should have had no trouble. Remember the interior of the uterus is like a huge open wound directly after labour. While I am on the treatment of the placenta, I should like to say a few words on its expression. Why one should start worrying a tired uterus the moment the child leaves it, I really don't know, and my practice for some time past has been simply to keep my hand over it, but not compressing it, until it has retracted, and then go and do something else, such as to repair a perinæum, after the child has been tied off.

We have all been taught to dread P.P.H. I am positive if we leave the uterus alone we will never get it in a normal labour. Why should we get it? If you commence to worry and squeeze it, what happens? You make the uterus contract irregularly, and hour-glass contractions may set in. The placenta may be only partially loosened, and to explain the post-partum which has happened, and the necessary manual extraction, we tell the patient that the afterbirth was fast to her side. I never saw a case of P.P.H. in a case attended by a nurse who left the uterus alone and did not pull on the cord. Why interfere with nature? Recollect also many a case of post-partum hæmorrhage is not due to bleeding from a placental site, but from a torn cervix and upper vagina, the result of our interference with forceps. I have removed many placentæ from the uterus, but I have yet to come across a case of adherent placenta.

When the head is born, I do not pull on it

to deliver the body, or hook my finger under a shoulder, or push it down from above, but I let the uterus and the mother's abdominal muscles complete the delivery. I am sure by this alone, not prematurely emptying the uterus, I get much better uterine retraction.

In examining for a torn perineum, I put the woman on her back, and have a good look, with as good an illumination as possible. I always suture up every little tear. I confess to having had four or five complete perineal ruptures, for which I plead guilty, all in breech cases through delivering the head too quickly, to save the child's life. In only one of these cases did I fail to get complete primary union of the whole wound.

When I was a student we were taught to wait six weeks before we attempted to sew up a total rupture. I may state I have given up doing episiotomy, as I find any tear of the fourchette heal up quite as readily as those from episiotomy.

During my two years' residence in Australia I have attended 125 cases of midwifery, and during this period, thanks to gloves and trusting principally to nature, telephone and motor car, and forceps in seven cases only, I had not a single case with a temperature above 100° due to the labour. In only one of these cases was the perineum torn more than through the fourchette, and that was a complete rupture from precipitate labour which happened before my arrival. I have often seen my friends stitch up a perineum, with the woman on her side, perhaps using one or two sutures. I recommend the woman should always be placed in the dorsal position, and the vaginal and perineal surfaces should be both sutured. For the dorsal position I always use webbing leg straps. They occupy far less room than Clover's crutch, and are handier than the sheet.

Occipito Posterior Presentations.—A R.O.P. which I did not recognise until I had taken the forceps off, because I could not bring the child down. I left the house and told them I would be back in six hours, when nature had accomplished what I had failed to do—i.e., brought forth a living child. A good rule to follow, if you put the forceps on and you find the child does not move easily, take them off and re-examine the abdomen and the position of the head once more to determine the position of the child more accurately, as I did in this case. I am perfectly convinced it is in these cases of occiput to the back, which are not recognised as such, that we cause so much

trouble by our interference. Remember the long turn does not take place until the head is down on the perineum; *vis-a-tergo* is far more efficacious than *vis-a-fronte*. I believe only four per cent. of these cases fail to rotate if left to nature; but what a number I have seen born face to pubes, thanks to forceps and *vis-a-fronte*. And what happens? There may be only a small tear in the fourchette; but use a Sims' speculum with the shoe towards the bladder, and you may see a tear running up the vagina. In these cases more than any other leave well alone, and go away and trust friend nature. I have come to the conclusion that nearly one case in three presents with the face to the pubes at the beginning of labour. I am positive it is in these cases of occiput to the back that not only maternal morbidity is greater, but there is far greater injury to the child.

Hegar's Dilators.—A few words on dilating a cervix with Hegar's dilators. Of late it is not fashionable to use tents as a preliminary. I consider I am as careful as the majority of men in passing Hegar's, but since I have been in Perth I have torn four or five cervixes while using them before I got up to No. 10, I could feel the tear from the cervical mucous membrane passing outwards. Tents are out of fashion. Why? Because they once more produce sepsis; they once more get the blame, not the surgeon's fingers. I use tents boiled in alcohol in Jellett's catgut steriliser. Here again, even in the treatment of a simple miscarriage without any symptoms of severe hæmorrhage, we must give an anæsthetic. Use Hegar's and scrape out the ovum. On a few occasions I have used a curette for this purpose, and a few days later the uterus has squeezed out a juice which I had left behind, the curette having passed over its surface. In the case of a miscarriage I once more urge patience, and the woman in the majority of cases will do all the work by herself. I remember being laughed at by many of the men when I took part in a discussion at home on the treatment of a miscarriage. Nearly all the men wanted to dilate up, get their finger in, and scoop or scrape the placenta or secundines out. I said the woman should be left to do it unaided unless there was sharp hæmorrhage going on.

Curettes.—A few words on the use of the curette. I have on two occasions pushed this instrument through the uterus and felt it in the abdomen. Fortunately, in these cases no harm came to the woman.

I quite agree in the latest practice of abandoning the use of a douche after the curette has been used, and simply wiping out the cavity with gauze in a forceps. I know of one case where the uterus must have been perforated when I was giving a uterine douche, or the fluid passed through one of the tubes, in a case of sepsis after a miscarriage. The woman gave a shriek, complained of intense pain in the lower abdomen, within two hours her temperature was 104° , but fortunately in a few days she was quite well.

Breech Presentations.—For a few moments may I ask, how many of us resist the temptation to pull on a leg when we feel it in a breech case? And what happens? Not only the arms go up above the brim, but the head extends, causing not only a lot of trauma to the mother but frequently the death of the child before it is delivered. In this case, more than in any other, I say leave well alone. How many of us have pulled on the legs and body of a dead child at the fifth month and broken the body off at the neck, giving one a lot of trouble to get the head away. This has happened to me on one occasion. Now I go away and leave it alone, saying once bitten twice shy.

Meddlesome Midwifery.—I cannot help thinking that the enormous amount of maternal morbidity which one hears of at present follows the practice of men who do not respect the vagina so much as they do the peritoneal cavity. They convert every midwifery into a surgical operation. Well, I blame in the first place the luxurious life of the present-day woman. She will not stand the slightest pain. She does not want the attendance of the medical men to superintend her confinement, but in marked English she says to the doctor: "Please, will you attend me in my confinement?" But she means, "Will you give me chloroform as soon as the pains begin?" While in still plainer English she says, "Will you put on the forceps before the os is wide opened, and before internal rotation takes place?" Well, what happens? In the first place the cervix is torn and the broad ligaments, if not the peritoneal cavity, are opened, the vaginal mucosa is also torn, the levator ani is badly stretched or torn, and last and of least importance, as far as immediate danger is considered, the perineum is torn and jagged. As a consequence, a strong, healthy woman is converted into an invalid. No wonder women do their best to prevent number two coming after such an experience.

Now, let us once more consider the title of my paper, which means let us not practice meddlesome midwifery. The majority of medical men know infinitely more about Kernig's sign, Koplik's spots, opsonic reaction, and the operations of excising the Cæsarean ganglion, for instance, than what they know about the ordinary rotations and descent of a fœtus coming into the world, and yet we are daily called upon to use this knowledge.

Let us practice abdominal examination, pelvimetry, auscultation, and go away during the greater part of a normal labour, and let them use the telephone, so as not to be tempted to interfere in response to the constant cries of "Give me chloroform; I wish you would do something for me." Let us never be tempted to put on forceps unless the os is absolutely wide open.

I should make it a rule, which should never be departed from, in a case free from complications, such as hæmorrhage, uræmia and its sequelæ, vulval hæmatoma, etc., forceps should not be used in a normal pelvis as long as the head is not fixed, and the sutures and fontanelles can be felt. If there are no pains, there will be no caput succedaneum, and no harm can come to the mother or child. If there is any obstruction, a caput will form, and the fontanelles cannot be felt readily, and one can form a fair idea of the difficulty by the extent of the caput.

We always have the tell-tale signs of the height of the retraction ring, ballooning of the vagina, dryness of the vagina, and standing out of the round ligaments to tell us if there is real danger to the woman. We also watch pulse and temperature.

Uterine Inertia.—I have often asked my friends why they have interfered when the pains have gone off. There is really no occasion for interference in their absence. I saw four cases of post-partum hæmorrhage in other men's patients from this very cause. The woman in these cases is much safer with the child inside the uterus than outside it.

Statistics.—I find in the Rotunda forceps are used in 1 in 40 cases. Looking at the reports of Queen Charlotte's, one is struck with the remarkable low death-rate of 5 in 1000, and in a hospital like this a large number of serious cases are admitted. In the British Lying-in Hospital, there were two deaths in 602 cases. I have no doubt in these cases they do not practice meddlesome midwifery;

they possibly all wear gloves, and they do *Credé* at the right moment.

Conclusion.—Now I must ask your forgiveness for putting my ideas in such a crude way. I have thought of writing a paper on the subject for the last half-dozen years. I know my ideas are not generally accepted. The most popular accoucheur is the man who uses the drop bottle and the forceps, but his patients very often are not able to be dressed on the tenth day.

In these days of telephones and motor cars there is no occasion to think of saving our own time by putting in the forceps, when they are not wanted, and the nurse of the present day is as competent as we are to receive the child in a normal labour.

It is so simple to give chloroform and put on the forceps and then go off to your game of golf, or bridge, after you have sewn up a perineum, not noticing the tears to the upper vagina and the badly-torn cervix, perhaps leaving the patient blanched from post-partum hæmorrhage, with a convalescence that takes a month, and a pretty up-and-down septic temperature chart. I am sure the patient will be better pleased with the absence of your services than if you had prematurely delivered her, and the child possibly stillborn from meningeal hæmorrhage. The mother may look tired, and the friends may be very anxious about the case, but this is no reason why one should interfere. I say again, if you cannot stay, go away; let them use the telephone and you the car, but not the forceps. How much pleasanter it is to call and see our patient when she is making a nice convalescence, after one's superintendence, than to have perhaps to make two or three visits a day, when the rigors and headaches come on after our interference, and perhaps have to meet another practitioner in consultation who may get all the credit of the case. Think, also, of the gossip and the uncomplimentary remarks passed about our want of skill in these cases.

I have done sufficient midwifery in the last 21 years to have met with nearly all the disasters and difficulties one can meet with, and you will recognise I have been sufficiently honest to have confessed them, hence I trust you will receive my remarks in the same spirit as I have related them. Think of the homes that are broken up when the mother is taken away, thanks to our interference; the invalidism that is brought on if this does not happen, also the great

disappointment to their hopes when the child is stillborn.

I say, finally, use the telephone and motor car, but not the axis traction forceps; but, in any case, do not forget the gloves.

(Read before the West Australian Branch of the British Medical Association.)

FOREIGN BODIES IN THE OESOPHAGUS.

By A. M. Gudmore, M.B., B.S., F.R.C.S., Adelaide.

THESE are very varied, especially among children and insane persons. They usually consist of meat, pieces of bone, fishbones, fruit stones, or artificial teeth. Children are in the habit of placing a great variety of articles in their mouth and occasionally swallowing them. In adults artificial teeth and bones constitute the greater number of cases. Occasionally a foreign body, from its size and character, ought readily to have gone down, becomes lodged as the result of some pathological change of the oesophagus as stricture, carcinoma, etc.

Site.—As regards the situation at which foreign bodies may become lodged, it is undoubtedly true that in the case of small, sharp-pointed bodies this may occur anywhere in the course of the oesophagus. Larger bodies which pass through the pharynx most frequently lodge at those places where under normal conditions the oesophagus is constricted, or pressed upon by neighbouring organs, or at places where the oesophagus changes its course. The three constrictions of the oesophagus are:—1. The beginning of the oesophagus behind the thyroid cartilage. 2. At or above the bifurcation of the trachea, i.e., opposite third dorsal vertebra. 3. Where the oesophagus passes through the diaphragm. The majority of foreign bodies, however, remain lodged in the cervical portion of the oesophagus. This is explained by the fact that the oesophagus is wedged in between the vertebral column, larynx and the thyroid gland, and also in the aperture of the thorax. The latter situation might easily be the seat of obstruction, as here the oesophagus, which in the neck is surrounded by soft non-resisting structures, passes through an unyielding bony ring into the thorax. The diagnosis is made by the history and subjective symptoms, with the aid of a sound, X-ray and oesophagoscope. First, it is ascertained positively whether the foreign body is swallowed or aspirated, or whether it is hidden in the folds of the clothing in the patient's

bed. Examination with a sound is in general to be condemned; even in the most favourable cases it reveals only the level of foreign body, and in many cases the deceptive ease with which the sound glides along the œsophagus causes the foreign body to be overlooked. The sound may do harm by causing impaction or moving the object from an accessible to a less accessible position. The sound should only be resorted to in the case of soft foreign bodies.

The examination first consists of external inspection and palpation of the neck; then examination of the mouth, pharynx and larynx by means of a laryngoscopic mirror and the aid of the finger. In most cases, however, the surgeon has to deal with objects which have lodged lower down the œsophagus. Large bodies situated in the cervical portion may occasionally be felt from without. There may be noticeable tenderness at a certain point. Secondary inflammatory manifestations may have set in, and there will then be noticeable swelling of the neck, or even an abscess. If perforation has occurred there may be crackling owing to emphysema.

The X-ray is an important aid to diagnosis, as well as showing the situation of the foreign body in those cases of suitable objects. It is advisable to take a photograph from the lateral as well as an antero-posterior aspect when the foreign body is suspected to be in cervical portion, whilst in the thoracic it is better to have the patient in an oblique and not in a dorsal position, in order that the object will not be covered by the shadow of the vertebral column or that of the heart.

The œsophagoscope in the hands of those that have acquired its technique is perhaps the most useful method of diagnosis, and it has the additional advantage that at the same time the foreign body may be removed by the aid of special forceps.

Symptoms vary according as the foreign body has produced an injury or occlusion, or both. If the œsophagus is occluded high up, attacks of asphyxia may occur and death may result. When occlusion is above the bifurcation, food and saliva are regurgitated with retching immediately after food is swallowed. When occlusion is below the bifurcation, regurgitation is delayed for some time. If the foreign body has injured the mucous membrane the chief symptom is a stabbing pain occurring at a certain point whenever swallowing is attempted. Localisation of the pain does not always correspond to the seat of the body. Even after a foreign body has passed

the patient complains of pain, which is due to injury to the œsophagus by the passage of the foreign body. Regurgitation may occur as the result of spasm. Hæmorrhage points to laceration, and occurs chiefly when the foreign body is sharp.

In individual cases even large foreign bodies have remained unnoticed in the œsophagus for years. Artificial teeth have been removed after 3½ to 12 years; but on the other hand, foreign bodies which are not immediately dangerous from their size frequently cause inflammation of the œsophagus through injury. An important point to remember is that in most cases the patient can swallow fluids and soft foods, though such attempts may cause pain.

The complications occurring with a foreign body in the œsophagus are quite incalculable, compression of the air passages and perforation of the œsophagus with its consequent results being the more common. Death may result from compression or occlusion of the superior aperture of the larynx. Cellulitis of the neck, septic mediastinitis, empyema, septic pneumonia, and less frequently injuries to the aorta or other blood vessels may occur.

Treatment consists of extraction by various methods, bloodless if possible.

Extraction through the mouth by pharyngeal and œsophageal forceps, umbrella probang and the coincatcher is now rarely done, unless the foreign body is impacted at the entrance to the œsophagus. Removal by pushing the body into the stomach is indicated only when the œsophagus is normal and the foreign body soft. Removal by the use of the œsophagoscope is, in the hands of those who have mastered its technique, the most scientific and safest method. This instrument is on similar lines to the urethroscope. It is passed until the foreign body is brought into view, when the body is grasped by specially devised forceps and hooks. Its use in adults requires cocain anæsthesia, and in children a general anæsthesia.

Operative measures are indicated when the above measures fail, and when there are symptoms of perforation and consequent sepsis, or in the presence of hæmorrhage, which is a bar to the use of the œsophagoscope, as the field becomes obscured by the presence of blood.

The operative procedures consist of œsophagotomy when the foreign body is situated above the bifurcation, but when the body is lower down gastrostomy or even both.

oesophagotomy and gastrostomy are to be considered.

Oesophagotomy is usually done on the left side, as the oesophagus in its cervical portion projects slightly to the left. This operation in itself has no special dangers, but it is, unfortunately, often undertaken after complicating injuries and inflammation have set in, hence its high mortality, which is estimated at 26 per cent.

A woman, *æt.* 33, was admitted into the Adelaide Hospital with the following history: Four days before admission whilst drinking soup she swallowed a piece of bone; she immediately choked and went black in the face. On being slapped on the back the bone was dislodged and the patient was relieved. The same night the neck began to swell, and pain was felt in the lower part of the neck and across the upper part of the chest. For the next three days she could swallow fluids with difficulty, but after this all fluid returned through the nose.

On admission.—Patient lies quietly in bed, speaks in a husky voice. Neck is swollen so that the normal outlines are obscured. Slight tenderness on palpation. Temperature 101°; pulse 112.

On being given a little water to drink it regurgitated through the nose. A laryngoscopic examination revealed nothing, and the condition of her neck showed that septic inflammation had set in. The radiograph taken by Dr. Newland showed the position of the bone as opposite the disc between the sixth and seventh cervical vertebra.

An external oesophagotomy was then performed on the left side. The tissues near the oesophagus were infiltrated with serum, and some foul smelling purulent fluid escaped; this appeared to come from the upper and back portion of the commencement of the oesophagus. The oesophagus was opened on its lateral wall, and the finger inserted, when the bone could be felt. The piece of bone was removed with difficulty, and appeared to be wedged into the oesophagus. No attempt was made to suture the wound in the oesophagus, a gauze drain being passed down to it.

The surface of the wound became very sloughy, and there was profuse discharge which was very foul-smelling and of an odour similar to that of a appendicular abscess. The wound discharged freely until several large sloughs came away.

As regards diet the patient was fed by nutrient enemata for eleven days, when a

stomach tube was passed, and for the next 21 days she passed the tube herself, and to-day, as the wound is healed, she is taking her nourishment in a normal manner.

The point that has especially appealed to me in connection with foreign bodies in the oesophagus is the difficulty of diagnosis. There is the question whether the patient has even swallowed a foreign body, and if so, whether it has passed down the oesophagus. During its passage down the oesophagus there may be a slight laceration, and the patient presents the symptoms of a foreign body lodged in the oesophagus.

Those cases in which there is not complete occlusion may for the first few days or even weeks present no symptoms beyond slight pain on deglutition, being quite able to swallow liquids and soft foods, and it is only on the onset of septic symptoms, which is first indicated by an increased pulse rate, does the case assume a serious aspect.

(Read before the Fourth Australian Branch of the British Medical Association.)

SURGICAL NOTES.

By E. H. Burkitt, M.B. (Syd.), Dubbo, N.S.W.

THE following notes of some recent cases seem to have a few points of interest. Before reading the notes I should like to lay stress upon the few necessary requirements in the way of assistance in operative surgery in the country.

First, I would place one really good nurse, conscientious, observant, methodical, and adaptable. With her must rest the preparation of the patient and largely the after care. There will be no house surgeon on the spot, and the surgeon may be called upon a long journey at any time. The nurse who is resourceful, but not meddlesome, and who knows when to let a patient's bowels alone, is the one required.

Of equal importance to the surgeon is a good anæsthetist. Want of confidence in his anæsthetist is very embarrassing to the surgeon and is apt to diffuse an atmosphere of haste and discomfort throughout the operating room, leading invariably to imperfect work. No operation should be willingly undertaken unless the services of a competent anæsthetist are available.

There should be also one good assistant, who, however, should as a rule have but little to do. An assistant surgeon is not a necessity, I believe, in any operation, and in country

operating one to take the position of house surgeon is not available.

By a suitable arrangement of tables and a careful outlaying beforehand of all instruments which may be necessary, including a number of cut ligatures and needles threaded with their sutures, the surgeon can manage best by himself.

Any assistant who is not really essential is only an additional responsibility. The surgical machine should be one of very few parts.

In country surgery the simplest aseptic technique gives good results. Gloves may be reserved for dirty cases. Efficient overalls and head-covers are essential. Ample scrubbing of hands and arms with a spirit soap and hot water, with thorough rinsing in sterile running water, is sufficient preparation for these parts if cleanly habits be observed at all times and contact with pus and other septic matter be avoided as far as possible.

For ligature and suture materials all purposes seem to be satisfactorily met by iodised catgut, Pagenstecher's thread and silkworm gut; they all have the advantage of simplicity in preparation.

CASE 1.—A. W., married, two children, aged two years, and eight months, respectively, came under my treatment with an early miscarriage, and so was subjected to an abdominal examination. But for the miscarriage, which she did not understand, with a baby at the breast, she was not aware that she had anything to complain of. On palpating the abdomen one found a tumour lying in the middle line just below the umbilicus, rounded and elastic to the touch. Deeper palpation showed it to be somewhat spleen-shaped, ten inches long, six wide, and perhaps eight in depth. It was freely movable and could readily be placed beneath either costal margin or in either inguinal region. Through the plumpness of the patient, the condition of kidneys and spleen could not be assured. Apart from the slightly enlarged uterus the pelvic organs were natural. The diagnosis made was that of a probable hydatid of the omentum with the possibility of a large wandering spleen.

Operation.—Under ether given by Dr. F. Adams, the tumour seemed most at home in the left hypochondrium. An incision was made in the middle line of the epigastrium. On opening the peritoneum the tumour presenting proved to be an hydatid cyst arising from the under surface of the right lobe of the liver, which had been thinned out into a large leaf-like expansion not many millimetres in

thickness, but covering one-third of the circumference of the cyst.

The proptosed right lobe with its attached cyst swung freely about the abdominal cavity, its excursions being only limited by the parietes. Large gauze sponges having been placed in two layers in each kidney pouch and beneath the cyst, a few traction sutures of Pagenstecher's thread were inserted into the cyst. It was drawn well forward, while a large aspirating needle was inserted. No fluid being obtained, a free incision was made into the cyst, which was found densely packed with daughter-cysts of all sizes. When most of these were removed by forceps and spoon a thorough digital exploration showed four accessory pockets budding off from the parent-cyst, each of which was thinned out almost to bursting, and was densely packed with its daughter-cysts. Their evacuation was carried out with some difficulty by invaginating them with the finger from behind.

Débris and stray cysts were removed by irrigation. After evacuation the greater part of the empty cyst was shorn off with scissors, leaving behind a shallow cup about five inches in diameter attached to the liver.

By suturing the edges of the cup into folds its mouth was reduced to a diameter of an inch and a-half. This was sewn with Pagenstecher thread to all layers of the abdominal wall except the skin. The cavity was packed with iodoform gauze and the remainder of the abdominal wound was closed. The gauze packing was removed on the fourth day, and a drainage tube substituted until the twentieth, when a small strip of gauze was sufficient.

Recovery was rapid and the resulting scar small and firm. The cyst was certainly an old one and it seems rather remarkable that in this case two pregnancies should have been carried through with an additional abdominal tumour and no particular discomfort experienced by the patient.

This and the following case point to the necessity of careful abdominal examination of every patient, even after a comfortable puerperium, and of thorough digital exploration of all cysts. Such secondary pockets as were present in this case if imperfectly evacuated will endlessly prolong convalescence.

CASE 2.—The following case was also under my care at the same time as the one just noted.

A.T., æt. 24, primipara, had recently been confined in the country unattended. She came to me to make sure that no harm had happened to her in childbirth. Dressed and

standing up she presented the appearance of a pregnant woman at term. This appearance alone made her friends send her for advice.

On examination the lower abdomen was flat, while the upper abdomen was unduly high and rounded, the ribs standing out over a very obvious cystic tumour, which filled the epigastrium and encroached upon the adjoining regions.

Operation.—Under ether, given by Dr. F. Adams, an incision in the middle line of the epigastrium exposed a large hydatid cyst originating in the left lobe of the liver. The cyst was aspirated, stitched to the abdominal parietes, opened, the endo-cyst removed intact, and the cavity packed with gauze. There were no daughter-cysts. Recovery was rapid and uneventful.

Generally after evacuating an hydatid cyst it is better to loosely pack the cavity with some antiseptic gauze than merely to insert a tube for drainage.

The patient after the sudden loss of a tumour is made more comfortable by the internal gauze cushion; a heart or other viscus which has been much displaced prefers a gradual return to its normal position. Moreover, the gauze when removed after several days brings with it débris and daughter-cysts which have been missed in the primary evacuation. After one or two light packings the cavity is very clean and sweet and a healthy granulation has been stimulated.

In one case I believe the patient had iodoform poisoning through the packing of a large cavity with 5 per cent. gauze. I now always roughly rinse out the gauze before using.

I have found hydatids in many strange situations, including the terminal phalanx of a finger, where there were myriads of daughter-cysts, so small as to require a lens to identify them, the sacrum in which case the resulting abscess pointed through the great sciatic notch into the buttock, the orbital cavity, the kidney, and, of course, the lung, liver, and omentum. One patient, with multiple hydatids of the back, died under my care last year from sepsis. The patient was an old half-caste.

From his back were dissected out with some difficulty 11 cysts, varying in size from that of a golf ball to that of a polo ball, many being deeply adherent in the various fascial planes. All of the wounds were unhealthy from the third day, and a rapid inflammatory process, accompanied by suppuration and cellulitis,

culminated in death on the eighth day. There were no other unsatisfactory cases at the time in the hospital nor in my own practice.

The low vitality of this region, particularly in an old patient, should be borne in mind; here the cysts are apt to be particularly adherent, and simple opening and draining, if more tedious, is safer than any deep dissections.

Two cases of ruptured ectopic gestation occurring in the bush are examples of the extraordinary tolerance by women under certain conditions of extensive internal hæmorrhage.

CASE 1.—M.J., a wiry, hard-working selector's wife, *æt* 46, had had five natural confinements, no miscarriages. Menstruation regular until last two months, when none had occurred. On January 1st there was a small uterine hæmorrhage; on January 12th a slight one. On February 1st, sudden, intense pains in lower abdomen, like labour pains, were experienced, causing some faintness, from which the patient quickly recovered. She then drove 40 miles on a rough road to get medical advice. She was poulticed for "inflammation," and was, fortunately, given an opiate. A recurrence of pain on the following day, accompanied by the passage of clots, brought her to me, a further journey of 40 miles by train. She walked into the surgery, and, though rather blanched, made light of her condition, saying she thought she had had a miscarriage, but felt all right then. She was sent to a hospital. On examination, temperature was subnormal, pulse 120. Abdomen moderately distended, but not tense. Tenderness over whole abdomen, particularly on left side. Moderate dulness to percussion in both flanks. P.V.: Uterine cervix enlarged and softened; os patulous; body of uterus not palpably enlarged; marked semi-fluctuating fulness in Douglas' pouch. There was but little doubt as to the diagnosis.

Operation.—Under ether the abdomen was opened and found to be filled with large firm clots and dark fluid blood. The left tube was at once sought, and on being drawn out, showed a large ragged rent upon its lower surface, where rupture had taken place into the broad ligament, the folds of which had, in turn, ruptured and flooded the abdominal cavity. A cystic ovary was matted to the remains of the hæmatocele. The tube was ligatured at the uterine cornu as soon as found. Both sets of appendages were re-

moved, the patient being near her menopause and the circumstances rendering any further pelvic trouble hazardous.

A systematic cleaning of the abdomen and pelvis was carried out by gauze sponges. The abdomen was closed in layers. No drainage was employed. The patient's condition upon the following day was that of one who had undergone a minor operation. Healing was by first intention, and convalescence remarkably rapid. Six weeks after leaving the hospital this patient returned with severe anthrax of the arm, contracted through "punching" the hide off a dead heifer. From it she also made a rapid recovery, after excision of the pustule.

CASE 2.—A.F., 33, married seven years. No children; no miscarriages. Had always been delicate; had been treated off and on from girlhood for left ovarian pain, which became intense and extended also to the right side at each menstrual period. Three months before I saw her she had consulted a medical man, who dilated the cervix.

She then came under the care of Dr. W. F. Buchanan, with severe spasmodic pains in the lower abdomen, mostly on the right side. Each bad spasm was followed by faintness. There had been some irregular bleeding during the past eight weeks. Within a few days the patient's condition had become critical, and I saw her in consultation. She had rather the appearance of a patient with malignant disease or pernicious anæmia than the blanched look of one who had suffered a sudden hæmorrhage. The pulse was 136; temperature 100. The abdomen was not distended, but was soft, except in the right inguinal region, where was marked fulness and tenderness. P.V.: Cervix perhaps slightly softened; fulness in the right fornix. Bimanually a soft mass could be detected extending from McBurney's point downwards into Douglas' pouch. Her removal to a private hospital for laparotomy was advised. The patient's condition upon the morning after arrival in hospital had improved so such that I decided to defer operation, but to be in readiness for it at any time. A little improvement continued daily until the seventh day, when a laparotomy was performed.

Operation.—Under ether, given by Dr. F. Adams, the abdomen was opened, and found to contain a large quantity of fluid blood and large clots. The right tube was at once sought, and found to be little more than the ragged remnant of the sac of an hæmatocele, which had burst into the broad ligament,

which, in turn, had been ruptured with recurrent hæmorrhages. There was just room to place a ligature of Pagenstecher's thread upon the cornual end of the tube, which was dangerously friable. A few stitches of catgut were passed through the uterine cornu, and the remnant of the tube was removed. A badly cystic ovary was adherent to the sac of the hæmatocele, and was removed; the ovarian vessels being secured with Pagenstecher's thread. The patient's condition was critical, and would not permit of any delay. A large bunch of iodoform gauze was inserted through the abdominal wound into Douglas' pouch. No attempt at systematic removal of blood or clots was made. The rapid changing of a few gauze sponges was all that was permissible. The wound was closed in layers. The large gauze drain was removed on the fourth day, a large amount of red serum having escaped by it, and a small ribbon of gauze inserted for three days more. The whole wound had closed, leaving only a linear scar upon the tenth day. Convalescence was extraordinarily rapid, the patient having a better colour and appetite within three weeks than she had enjoyed for many years. I am inclined to think that, laboratory evidence to the contrary notwithstanding, this patient made good use of her own retained blood-clot.

Further, though one usually feels that it is safest in such cases to operate as soon as the diagnosis of ruptured ectopic gestation is made, I feel sure that this patient, who made such a quick recovery, would have succumbed had even a rapid operation been attempted when I first saw her. One may come across cases where, having all in readiness for operation, it is advisable to wait while recuperation is obviously proceeding.

(Read at the meeting of the Western Medical Association at Dubbo.)

AN UNFAVOURABLE CASE FOR OPERATION, WITH RECOVERY.

By C. L. Handcock, M.B., Ch.M. (Syd.),
Ashburton, N.Z.

EARLY in December, 1907, I was consulted by a patient, aged 62, on account of an enlargement of the abdomen, which she had first noticed about four years previously, and which had steadily increased to its present size.

On examination, her abdomen was found to be tense and distended, and the case was diagnosed as a cyst, probably ovarian. She

was advised to have an operation performed, but as the enlargement caused no actual pain, she resolved to let it remain longer.

Her home was six miles out of town, and I did not see her again until February 6th, 1908, when I was sent for, and found her in great agony, propped up in bed, and quite unable to lie down. Her pain, which was diagnosed as being due to a twist of the pedicle, and hæmorrhage, was relieved by morphia, but as she had a thrombus seven inches long in her left internal saphena vein, and much phlebitis, it was not considered safe to remove her to town.

On March 8th she had a similar attack, only much more severe, to which morphia gave but little relief, and as the thrombus and phlebitis had gone, she was moved, with much difficulty, to Bathurst Private Hospital in Ashburton. During the previous month the swelling had rapidly increased, and the pain was so great that she begged for relief, declaring that she would speedily burst unless relieved. But her condition was most unfavourable for operation, as she could get no sleep except that produced by morphia; her pulse was 140; her bowels had not acted for four days, and the pressure of the cyst made it impossible to give her an enema. She could retain no food, and her vomiting of faecal matter was almost continuous.

Under ether, given by Dr. Mullen, and with the assistance of Dr. Hunter, I opened the abdomen in the middle line. The abdominal wall was extremely thin, and the cyst at once protruded, hard and tense as a football, but it was only possible to puncture it with a Spencer Wells ovariectomy trocar, and the instrument could not be made to enter the cyst. The fluid was gradually drained away, and the cyst-wall, on being drawn out, was found to resemble a thick sandwich, the inner and outer layers of which were separated by a thick layer of partly organised blood-clot, and on approaching the pedicle, one large mass was found in the cyst-wall as large as a uterus of four months' pregnancy. The pedicle was very short, and it also contained a middle layer of similar clot. The right ovary, being much enlarged, was removed, and was found to mostly consist of three cysts, containing clear fluid.

The cyst owed its origin to the right parovarium. The cyst having been removed, and the fluid having been sponged from the abdomen and pelvis, the abdominal wound was repaired rapidly in layers without drainage, the patient's condition being far

from good. She made an uninterrupted recovery, and left the hospital in five weeks, and is now able to walk and drive about in better health than she has had for some years.

To me her recovery was a complete surprise, as so many circumstances combined to render her condition most unfavourable for such a severe operation: her age (62), her state of exhaustion from pain and vomiting, her inability to take nourishment in any form, and the absolute blocking of the bowels. Though a pedicle, free from blood-clot, could not be made, and though no drain whatever was used, the temperature remained satisfactory throughout, and the pulse rate gradually fell until it became normal on the sixth day after operation.

AORTIC ANEURISM RELIEVED BY CALCIUM CHLORIDE.

By Theodore Ambrose, M.B., Ch.M. (Syd.), late
Honorary Physician Perth Public Hospital.

A SINGLE man, aged 32, was admitted to the Perth Hospital on June 21st, 1907. He was a butcher till six years ago, then barman for over four years, and between times has done all sorts of work, some of it heavy butchering again. Family history was unimportant. Previous history.—Typhoid 10 years ago; good health before and since then; some alcoholism, but no specific history was obtained. Present illness came on suddenly one year ago when lifting a box of machinery off a waggon, when he had severe pain in the infra-clavicular region. Worked on for a few days and poulticed himself, and then went to Kalgoorlie Hospital, and pain was relieved, but returned on his resuming work. At the end of four months pain moved below heart, and was severe in left scapular region, and down the inner side of left arm and at point of left elbow. Voice was not husky then. Used to get short of breath on slight exertion. Has been butchering in Perth and Cue, and went to Katanning for light work, but had to give it up and go into Katanning Hospital, whence he was sent to Perth Public Hospital. On admission he complained of pain in left arm down to point of elbow, pain in right shoulder, sensation of fluttering and thumping in left infra-clavicular region when pain is more severe, huskiness of voice.

On examination, patient seen to be fairly well nourished. Pupils react to light and accommodation. Thorax; inspection,

fuller under left clavicle, where pulsation can be seen. Palpation, pulsation felt in left infra-clavicular region. Percussion, dulness over upper end of sternum and to the left of it Auscultation, no cardiac bruits, aortic second very accentuated. Breath sounds normal, except that they are diminished under inner end of left clavicle. Voice very husky. Dyspnoea on exertion. Tracheal tugging present.

4/7/07.—Voice still very husky. Slight dysphagia. Pain still present.

14/7/07.—Urine 1030; no albumen.

1/8/7.—Still gets attacks of pain in left shoulder extending to elbow, and feeling of numbness down the arm.

25/8/07.—Pain still present; now extends to left wrist.

5/10/07.—Pain complained of as before. Throbbing sensation in infra-clavicular region complained of as well. Tabellæ erythrol tetranitrate relieve it a little.

22/10/07.—Sleep interfered with a good deal by the pain and throbbing in spite of morphia hypodermically and nepenthe by mouth.

24/10/07.—Put on calcium chloride, gr. xv., three times a day. Has been on Hst. K.I. since admission and has been taking K.I. gr. xx, three times daily lately with liq. trinitrini m. i, increased to m. ii three times a day.

8/11/07.—Pain and throbbing not so troublesome lately. Is able to sleep better. Has been a good deal less troubled with pain since taking calcium chloride. Has not required any opium preparation lately.

14/11/07.—Pain and throbbing decidedly better.

19/11/07.—Able to sleep well at night without any narcotic.

5/12/07.—No pain anywhere. A little tenderness and throbbing in left infra-clavicular fossa. Voice much improved, though still husky. Sleeps well.

1/1/08.—Only symptom now is occasional slight headache.

Was X-rayed three times, and with screen the aneurism was very clearly seen. The shadow practically filled left upper quadrant of chest.

This case, though a solitary one, seems worthy of reporting, as little or no mention of calcium salts is to be found in text-books on the treatment of aneurism. After weeks of treatment with potassium iodide, morphia, etc., the pain, throbbing, and insomnia were

steadily increasing. The improvement commenced almost immediately on taking calcium chloride.

I am indebted to Dr. N. J. Gerrard, resident physician, for keeping the notes of the case.

A REMARKABLE CASE OF INJURY TO THE SPINE.

By Dr. Henriksen, Toowoomba Q.

A.K., a young man of the age of 19, a carpenter by trade, strong, well-built, and descended from a healthy family, fell during work from a verandah about 6 to 8 feet high, and struck the ground with his shoulder. This was on May 24th. On the following day he was able to walk and to do his work without appreciable suffering.

The second day after the accident he complained of severe pain at the back of the neck and between the shoulders, but he did not seek medical advice.

It was on the third day I saw him. He was then lying with head slightly bent backwards, the cervical muscles a little rigid. He could move his head freely from side to side, but was not able to bend it forward. The long dorsal muscles were found to be somewhat tender on pressure. He was able to sit up, though this and any other change of position increased his backache. Pressure on the spine was not painful; the internal organs showed no pathological change. The temperature of the patient was 98.4° (in the evening 100°), the pulse being 84. At the forearm I noticed a boil.

On the 29th the temperature was normal, and there was less pain. During the night of the 30th there was again severe pain, and on the morning of June 1st I found the whole spinal column stiff. The spinal processes of two of the lower dorsal vertebræ were tender on pressure; no tenderness was revealed, however, by pressure of the head. The abdomen was retracted, the muscles of the abdominal wall being rigid. Motion and sensation were intact, and there was no urinary disability. The patient was able to walk; he even left his bed during the night. On the following day both lower extremities were paretic, the right more than the left.

The patient was now removed to the Toowoomba General Hospital. Here, in the course of 24 hours, the paresis developed into complete paraplegia up to the mammæ, a small zone of hyperæsthesia being marked

above the anæsthetic area. The temperature chart now showed a characteristic septic intermittent fever, with high evening elevations. A lumbar puncture proved negative.

During the next few days a projection of the third and fourth dorsal spinous processes appeared. This projection had not been noticed during the many examinations of the previous days. It became more and more prominent day by day, forming a gibbous. At the same time an abscess formed on the left side between the spine and the scapula. This was opened by Dr. Faulkner, and subsequently it gradually healed up, leaving a small sinus, which did not close.

The rest of the patient's sad story is shortly told. He had to endure all the sequelæ consequent upon total transverse lesion of the cord. He died after nine months' suffering on June 21st, 1908, the last fatal complication being pneumonia of the left lower lobe.

Post-mortem examination showed the cord, from the level of the fourth dorsal vertebra downwards, atrophied and extensively adherent to the dura spinalis. The vertebral canal did not present any abnormal narrowing, and it contained no pus.

In front of the spinal column a big abscess was found extending laterally both ways, but principally to the left, at the back of the pleura, communicating with the above-mentioned sinus. The matter contained several small bony sequestræ as big as a pea.

A free opening led from the abscess to the body of the fourth dorsal vertebra, which had become hollowed out into a cavity, the cortex alone remaining and forming a mere shell containing a collection of pus and bony sequestræ, the remnants of the destroyed spongiosa. The right lung showed no abnormalities. The left lung, especially behind, was fixed by very firm pleural adhesions, which needed separation by the knife; the lower lobe showed pneumonic infiltration.

The remarkable feature of this case during the first eight days after the accident was the entire absence of any graver symptoms. There was, indeed, no definite sign of any serious injury to the spine—no deformation, no tenderness of the injured bone on pressure (direct or indirect), and no disorder of nerve function. The man was able, in fact, to sit, stand, or walk. All the cardinal symptoms of fracture of the spine were absent. I thought at this stage that a hæmorrhage into the membranes of the spinal cord would sufficiently explain the severe pain and the

stiffness of the neck caused by irritation from the extravasated blood. Fracture of one of the vertebræ seemed improbable to me. And even to-day, after post-mortem examination, it is hard to say whether there was a fracture, a simple fissure, or only a contusion.

Though the case is unusual, it is yet well known that a lesion to the body of a vertebra, whether fracture or fissure, may not lead to any more severe condition than that observable during the first week of this case; and sometimes even far less trouble is experienced. This is most clearly stated by William H. Bennett in Sir Frederick Treves' System of Surgery.

Both Schede and Kummel some years ago pointed out that not infrequently injuries to the spine give rise to very few symptoms, or none at all, immediately after the accident, and are only made manifest months after, when traumatic spondylitis sets in. Sometimes in these cases the patient is not aware of the traumatic cause of his trouble.

I think under this category of so-called latent fracture, where an exact diagnosis—if fracture, or fissure, or contusion—is impossible, our case has to be classified. There would have been every prospect of a speedy and perfect recovery if pyogenic infection had not supervened. On seeking for a cause of this fatal complication we have to consider the fumule at the forearm as the possible *causa peccans*. In many instances of apparently local suppuration, such as phlegmon, panaritium, carbuncle, the pathogenic germs have been found circulating in the blood. In our case these may have settled at the *locus minoris resistentiæ* in the damaged bone of the vertebra. Here, consequently, destruction of the spongiosa took place, leading to the gradual formation of the gibbous, which was most obvious to all observers. The infection, spreading further, appeared as an abscess at the back of the pleura and as meningo-myelitis in the vertebral canal. It is remarkable that the latter did not extend above the level of the injured vertebra, where it was limited by firm circular adhesions. Most likely these adhesions were formed at an early stage, otherwise the meningitis, spreading to the higher parts, would soon have caused a fatal end. The circumstance that the lumbar puncture disclosed no pathological product seems to point also to the same conclusion—i.e., to the early formation of adhesions stopping the free communication of fluids within the vertebral canal.

CLINICAL AND PATHOLOGICAL NOTES.

CASE OF "STOKES-ADAMS" DISEASE.

WHILE reading an article by Clifford Allbutt in his "System," I came across the following, which made me think the notes of a case that lately came under my care may be of sufficient interest to put on record. He says: "We read of pulses of 20—nay of 12 a minute; of stops of 15 seconds duration—in one instance of an arrest of 30 seconds. An absolute stop of 15 or 20 seconds must surely mean fatal syncope, or epileptiform convulsions."

Mr. F., age 57, came into hospital June 23rd, 1906. He was rational, but pale and weak, and complained of taking "peculiar turns." He has lived here 30 years; always enjoyed good health. Had pleurisy as a boy in the West Indies, and dengue, not enough to lie up with, a few months ago. Temperate, no specific history. Not subject to headaches, vomiting, diarrhoea or digestive disturbances. Eyesight good. The "turns" commenced on the day of admission. Many occurred in hospital while under supervision. They were characterised by short attacks of unconsciousness, with quite conscious intervals. The attacks varied from one a minute or so for six or more attacks, to three or four in the twenty-four hours, gradually ceasing till he was discharged on July 29th, having been free of attacks then for some days.

During the attack there was marked alteration in the character of the pulse and respiration, the former being slowed and altered in rhythm in a peculiar way, the respiration being of a modified Cheyne Stokes type.

In the conscious intervals, pulse, though slow, was fairly regular, respiration normal, and patient appeared and felt well, though weak and somewhat pale.

The attacks, as I have said, were at times frequently recurring. With fingers on the pulse, which was normally 28, it was felt to get gradually slower and weaker, till it stopped for a long pause, from 15 to 25 seconds. As this pause commenced, the patient, who had been talking rationally, suddenly ceased answering questions, the respirations became quicker and deeper and plainly audible, then commenced to decline quicker than the ascent; with the reappearance of the pulse, which in four or five beats had regained the normal rate and regularity, and the patient talked again quite rationally,

but realised that he had had a "turn." In a few seconds the pulse gradually slowed again to stopping point, with a similar phase of respiration and unconsciousness. During the attack the pulse would register 12 per minute. The stethoscope count at the cardiac apex verified the radial pulse count. During the pulse pause the orbicularis palpebrarum contracted; there was slight twitching about the mouth, and retraction of the angles of the mouth; no other muscular contractions.

The cardiac impulse was only visible and palpable in the left epigastrium; no oedema, no venous pulsation in the neck, no arcus senilis. First apex sound, short and reduplicated; second aortic not accentuated, no bruits. Pulse normally, 28 (twenty-eight), fairly regular, low tension. Respiratory system normal; no dyspnoea except during attack. No frequency of micturition; sp. gr. of the urine ranged from 1018 to 1025, with only a light albumen cloud at times.

Patient was discharged July 29th, and I lost sight of him. Some twelve months afterwards he dropped dead in the canefield. No post-mortem was obtainable.

C. E. WILLIAMS, M.D., B.S. (Melb.)
Mackay, Queensland,
26-6-08.

FRACTURE OF THE FEMUR IN THE NEW-BORN.

THIS is a Z-shaped splint for fracture of the femur in the new-born. The case in which it occurred was an impacted breech presentation which the woman was unable to deliver herself. As tractor I used a boiled silk handkerchief, and in this I made a mistake, for it bunches up too much in the groin of the child and acts as a fulcrum over which the femur bends and fractures. The bone was very brittle, for I heard the click of the fracture with the first tightening of the tractor and before any real pressure was applied. The fracture is about one-quarter of the way down the bone. Beyond Cred's recommendation that such fractures should be treated by binding the thigh to the abdomen no mention is made in Stinson, Scudder or any other text-book of the treatment to be adopted. One thinks of extension in a double Hamilton or by suspending both legs, but such means are impracticable to a child on the breast, and besides they do not bring the fragments into line. With a rapid exposure before an X-ray

screen one can see at a glance that the fragments are in line with the thigh, almost touching the abdomen, and this splint is made to keep the thigh at that angle. The new-born child lies with its legs in that bent-up position, and in that position only are the muscles relaxed. It is really the position in utero. This splint was made of aluminium, and so you can see the position of the fragments with the splint in position, for aluminium is pervious to X-ray. The result was absolutely perfect; there is no shortening, and one cannot see any difference at all between the two thighs. The splint is made by Mr. Lear, of North Sydney.

J. L. T. ISBISTER, M.B., Ch.B. B.Sc.,
North Sydney.

SMALL ROUND CELL SARCOMA OF HEAD OF FEMUR.

THIS specimen was taken from a late inmate of Prince Alfred Hospital.

5/5/08.—J. E. W., aged 40, single, was admitted from Rookwood Asylum, complaining of a bad hip. Family history, no interest.

Present trouble started six months ago with sudden cramp in right leg; this passed off, but patient gradually and insidiously went lame. No history of any injury, however slight, to hip. In three or four weeks' time he laid up for a fortnight, and felt quite well again; but in two weeks' time he complained of severe pain shooting down the right leg and "exploding" in the knee. This pain shooting and burning has been present ever since; is made easier by rest. "Night starts" were also complained of, and the patient has been in bed for about the last five months and has lost four or five stone in weight. Appetite bad; bowels regular, urine normal. Right hip enormously swollen; no fluctuation; no sign of inflammation; no involvement of skin; muscles round knee wasted; no knee-jerks. Needle introduced excluded hydatid. Diagnosis of sarcoma was made, and operation, under the circumstances, deemed inadvisable.

10/5/08.—Patient died five days after admission from cachexia, without fresh symptoms developing.

Post-mortem.—The whole of the bony wall of the pelvis on the right side was found replaced by soft tumour mass, with exception of a small piece of the ilium, near the sacro-iliac synchondrosis. The head and neck of the femur and upper quarter of shaft

of femur were also absorbed. An interesting feature was the persistence of the articular cartilage casing the head of the femur as a thin shell, and the limitation of the growth to the right side by the articular cartilage at the symphysis. Absence of knee-jerk might be attributed to the fact that the muscles had no firm points of attachment at their upper ends. Two small metastatic growths (also round-celled sarcomata) were found in left kidney, which existed without urinary symptoms. The iliac lymphatic glands were enlarged and dark in colour, but their constituent cells were not melanotic.

CYRIL J. WEEDON, M.B.,
Royal Prince Alfred Hospital, Sydney.

REMARKS ON TWO CASES OF HÆMORRHAGE IN NEW-BORN CHILDREN.

CASE I.—Female child, quite healthy in appearance when born; weight, 9 lb. Mother had slight post-partum hæmorrhage. When 49 hours old the baby suddenly had profuse bleeding from the bowel and died nine hours later, having had two further profuse hæmorrhages. There was no hæmatemesis except a little "coffee grounds" material vomited shortly before death. A post-mortem examination was made 19 hours after death. Only the abdomen was examined. Some dark partly-digested blood was found in the large intestine and lower part of small intestine. There was a fresh-looking clot in the duodenum. A perforation was found in the left wall of the duodenum, about an inch above the opening of the bile-duct. The margin of the whole was thinned and there was no extravasation, giving me the impression that some post-mortem digestion had completed the perforation. The stomach was empty and seemed healthy. The family history disclosed the fact that the mother had a tooth extracted a few years ago and bled freely for 13 hours afterwards. The mother's first child had bleeding from the bowel on the first day. It recovered, but died five months later from enteritis. The case under consideration was the second child.

CASE II.—Was probably of a similar nature. Male child, 48 hours old, apparently quite healthy. Was lying asleep when he sneezed a couple of times. Then passed a little blood. This was followed in a little while by a larger amount (two or three ounces about), consisting of clot with blood stain on

the napkin around it, and darkish in colour. At the same time some darkened blood was vomited. This occurred in the afternoon. During the night small quantities of blood were frequently passed, but no vomiting occurred. Next morning the bleeding stopped and the child improved in condition, although somewhat pale from loss of blood. Only water was given during the day. At night, after a drink of breast milk, vomiting and bleeding recurred, causing marked pallor and feebleness. For the next two days nothing but egg-water was given in the way of nourishment. During this time the child improved and was then put on the breast without further trouble. In this case there was no family history of bleeding. There was a slight ecchymosis present on one eyeball.

The medicinal treatment employed in both cases was calcium chloride. The first case had two 10 grain doses, but there was not time for any effect, as it died quickly. The second case had 5 grain doses every two hours for six doses, and then every four hours for about six doses. I found good accounts of the subject in Allbutt's System of Medicine and Holt's Diseases of Children.

As to the cause. Hæmophilia is not in evidence in many cases, although there seemed to be a tendency that way in the family history of the first case. Bacterial invasion appears to be the most probable explanation. In many cases organisms have been isolated from the blood and tissues, and hæmorrhagic disease appears to have been epidemic in two instances, affecting institutions, mentioned by Holt. My cases occurred within a short space of time at the Women's Hospital, Crown-street, but there was no apparent connection between them, one child being born in the hospital and one in the district. In gastro-intestinal hæmorrhage ulcers are often found, and always in stomach or duodenum, or both.

As to treatment. Dr. Machell, of Toronto, recommends the use of gelatin, the prescription being: Gelatin alb. (Merck), gr. 30; sod. chlorid, gr. 2; aq. distill., dr. 3. One drachm every hour or two hours. He tried calcium chloride in some cases (1 gr. every four hours) without apparent benefit. Allbutt mentions that the disease is brief in duration; and I think in intestinal cases the complete and prolonged stoppage of milk and substitution of water or egg-water is rational.

I certainly expected to have a post-mortem examination of the second case to record, judging from the appearance of the patient.

Whether the larger doses of calcium chloride had any effect in checking the bleeding I should not like to say. I can remember having seen two previous cases of slight hæmorrhage from bowel, which recovered without treatment.

JOHN MORTON, M.B., Ch.M., Sydney.

A CASE OF INTUSSUSCEPTION DUE TO AN INVERTED MECKEL'S DIVERTICULUM.

A CHILD, aged two, was brought to the Perth Public Hospital with a history of 24 hours' illness, and the usual symptoms of cramp-like pains and the passage of blood. An ill-defined, sausage-shaped tumour could be felt on palpation reaching from the right iliac fossa to the liver. I opened the abdomen by the usual McBurney splitting incision, but it was only with great difficulty that I pulled out the ascending colon and cæcum. I found an intussusception which had commenced about eight inches from the lower end of the ileum, then had passed through the ilio-cæcal valve, and had reached half-way up the ascending colon. On reducing it by pressure from below, I at last came on a dimple, and this suggested that the cause of the trouble was an inverted Meckel, which had formed the apex of the intussusception. The Meckel was an inch long, which, as the child was too collapsed to stand an excision, I anchored to the parietal peritoneum.

The child, although the operation only lasted twenty-five minutes, was very much collapsed for a few hours afterwards, and has since made a rapid recovery.

J. KYNASTON COUCH, M.D.,

Surgeon, Perth Public Hospital.
Perth, W.A.,

UNUSUAL CASE OF PERINEAL RUPTURE.

On the 1st inst. I attended a vertex presentation, first position. After delivery of the head the infant's body slid past the vulva into the nurse's hands, the thighs and legs followed; but as one foot fell free the other gave a strong spasmodic kick at the fourchette, which split at once, and the toes scraped through a rent over an inch in length.

The perineum had been preserved during the passage of head and shoulder. The hands of the nurse were occupied; one of mine was over the fundus uteri. If, with the other, I had gripped the legs together the accident might have been prevented.

WALTER SPENCER, M.D.,

Lecturer on Obstetrics, South Sydney Women's Hospital.
August 3, 1908.

REVIEW AND NOTICES OF BOOKS.

MEDICAL GYNÆCOLOGY. By Howard A. Kelly, M.D., Professor of Gynæcological Surgery, Johns Hopkins University. New York: Appleton & Co. Sydney: Angus & Robertson, Ltd. Price, 25s.

Howard Kelly produced a masterpiece when he gave to the world his "Operative Gynæcology." Now he has created a handmaid for his former work, his object being to point out what division of gynæcology rightly belongs to the general practitioner.

The author has done his work well, and has wisely called to his aid some distinguished American physicians to write special chapters on neurasthenia, hysteria, the hygiene of the growing girl, gonorrhœa, syphilis, and abortion.

The work opens with a chapter on the consulting room and its appointments, and we find here a clear account of the novel method of gauge records for abdominal tumours and displaced viscera. The chapter on the physical training of the schoolgirl is a very important one, as also is the one on hygiene of puberty. Menstruation and its disorders are dealt with fully, and after this comes a common-sense chapter on constipation and headache. The author then considers such difficult subjects as pruritus and masturbation, and passes on to a full exposition of uterine displacements. Gonorrhœa and syphilis are handed over to Drs. Burrage and Morrow. The chapter on abortion and the treatment of miscarriages is good, and fibroid tumours and cancer receive much attention. The remainder of the work is given up to cystitis, nervous disorders, appendicitis and mobile kidney.

We have gone through this book carefully, for anything that Howard Kelly writes is always worthy of consideration, and we affirm that this work fulfils its object well, for it clearly points out how much the general practitioner can do for many gynæcological cases without any operative procedures whatever: at the same time it shows how far he may go with safety before he hands the case in to the specialist for further treatment.

Like all the books that bear Howard Kelly's name, this one is beautifully illustrated, and both the gynæcologist and the general practitioner will find much that will be of service to him in the 660 pages that constitute this excellent work.

GREEN'S ENCYCLOPÆDIA AND DICTIONARY OF MEDICINE AND SURGERY. Vols. 1 to 7 (Aachen-Physiology). Edinburgh and London: Wm. Green & Sons. Sydney: Angus & Robertson, Ltd. To be completed in 10 vols., price 12s 6d each.

We can hardly expect to do justice to seven volumes of an encyclopædia of medicine and surgery in a few paragraphs. Still we may draw attention to some of the special features of this fine work, which will take its place in the medical man's library to perform the same useful service that Chambers' Encyclopædia does for the layman.

J. W. Ballantyne, the well-known writer on the diseases of infancy, is the editor, and he has chosen as coadjutors many of the best-known men in English medicine and surgery. The editor's object has been to produce an encyclopædia, and at the same time a dictionary of medicine and surgery, and one of the special features of this work is the definitions of words. But the editor is not content with a mere definition, and each word has numerous cross-references: Thus, as an example, the term "agglutination" is defined; then if the reader wishes to know more about the

matter he will be directed to articles on immunity, to typhoid fever, and to undulant fever, where he will get the further information that he requires.

In an encyclopædia of medicine we must expect that the knowledge contained there will be administered in the tabloid form, for there is no room for diffuseness. This concentration of knowledge is really what the needs of the hour demand. The busy practitioner wants to get to the point by a short cut. If then an encyclopædia is complete, correct and concise, it saves one much labour and much expense, for one need not buy a separate work on individual subjects. As each volume of the present encyclopædia came to hand we went through the articles that interested us, and we found that the work was quite up to the high standard that we would have expected with such a number of well-known contributors as writers. Thus in the first volume almost the first article is on abortion, and this is from the pen of Sir A. R. Simpson, and is a model of concise and accurate writing. Again turning to the end of the same volume we have an article by Risien Russell on tumours of the brain, which gives us in a few thousand words all the essential facts on a subject from the physician's point of view; then where his work ends the subject is considered by the surgeon (J. M. Cotterill). Each volume is carried on in the same complete and thorough fashion, and when completed this encyclopædia will probably be the finest work of its kind in the English language.

AN INDEX OF TREATMENT. By various writers. Edited by Robert Hutchison, M.D., F.R.C.P., Physician to the London Hospital, etc., and H. Stansfield Collier, F.R.C.S., Surgeon to St. Mary's Hospital, etc. Third edition. Bristol: John Wright & Co. Sydney: Angus & Robertson, Ltd. Price, 23s 6d (postage, 1s 3d).

There is probably no department of practice which gives rise to so much difficulty and uncertainty, specially in the mind of the young practitioner, as that of treatment. In the course of his student career he learns much of physical signs and of diagnosis, but a full discussion of the various methods of treatment is often left out. Hence when the young practitioner enters upon practice, and is brought face to face with the treatment, often of minor ailments, he finds himself in some doubt and difficulty. This volume, which is written by the leading medical and surgical authorities of Great Britain, will supply the want in a way that no other volume exactly does, and therefore it is a book which will be most useful not only to young but older practitioners. We find these contributions embrace all that is best and most serviceable in modern methods of treatment. The volume is of handy size, well printed, and with numerous illustrations, and must be a valuable addition to the library of every practitioner.

CLINICAL LECTURES ON THE SURGICAL DISEASES OF THE URINARY ORGANS. By P. J. Freyer, M.A., M.D., Ch.M. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 12s 6d net.

This series of lectures deals with the common diseases of the urinary organs in a manner which is eminently practical, and the lectures may be regarded as the expression of opinion of one who is relating his own experiences and his own impressions. Freyer is so well known as a strong advocate of prostatectomy and litholopaxy that his views on such subjects can be accepted as authoritative. The book is well arranged and attractively and concisely written.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH AUGUST, 1908.

CORONERS AND INQUISITIONS.

THE recent action of the Adelaide City Coroner in ordering the exhumation of the body of a patient who had died in the Adelaide Hospital, and the subsequent holding of an inquest upon the case, has opened up certain questions as to the duties of coroners and the duties of medical men in relation to deaths which are not due to natural causes. By "natural causes" is usually meant, of course, those diseases which are not in any way associated or dependent upon external wounds or injuries.

The duties of the coroner are most important for the safeguarding of the general public and the detection of crime. To this end the coroner is required to investigate the cause of death, when a dead body is found within the area of his jurisdiction or when death has been due to accident or injury of any kind, or when death has resulted from some cause unknown to the practitioner in attendance on the deceased. The powers entrusted to a coroner are very extensive; in fact, they are nearly as great as those of a Supreme Court Judge, and the Crown is always unwilling to interfere with the action of a coroner any more than with that of a Judge, unless some very glaring and flagrant error is committed by the coroner. Proof of this is furnished by the fact that in spite of all the representations made to the Lord Chancellor of England by the British Medical Association in 1903 regarding the methods of procedure adopted by a coroner in London, that gentleman still holds office and pursues the "even tenor of his way." This does not,

of course, alter the fact that this gentleman does not behave as he should towards the profession, nor do his methods commend themselves to the profession or the right-thinking public. Recognising, then, the powers and importance of the coroner's office, it is essential that a coroner should be a medical man, and a medical man in sympathy with the profession. It is no part of a medical practitioner's duties to usurp the functions of the coroner, and decide whether an inquest is necessary or not. It is the duty of the practitioner to decline to give a certificate of death and to refer to the coroner all cases in which death is due to any accident or injury, and to leave to the coroner to decide whether an inquest be necessary. This course is one which should be always adopted, since it not only relieves the practitioner of a great deal of responsibility, but it prevents any unpleasantness arising afterwards, either from the action of the deceased's friends or from the interference of the coroner.

In the recent case in Adelaide, a man who had had a severe burn on his leg 18 years before, is reported to have received some injury to the burnt leg while working at one of the mines in Broken Hill. He subsequently developed pyæmia, and died some six or seven months later in the Adelaide Hospital. A certificate of death was given by the medical superintendent, and the body was buried. Subsequently the matter came to the knowledge of the coroner, who ordered the exhumation of the body, and then held his inquest. There might have been certain circumstances surrounding the receipt of the injury in the first instance which would suggest culpable neglect on the part of the authorities at the mine, which would not, of course, come to the notice of the medical attendant of the deceased. Yet these would be most important matters for investigation by the

coroner. There is little doubt that had the course above advocated been adopted the coroner would have dispensed with an inquest; but under the circumstances the coroner was quite within his rights in holding an inquest.

A coroner has to enquire and not be an inquisitor, and the profession should give him every assistance in the conduct of his enquiries. The peace of mind of the practitioner will be more secure if he acts frankly towards the coroner, and throws upon that official the responsibility of giving burial certificates in doubtful cases.

INEBRIETY IN NEW SOUTH WALES.

IN the course of his annual report Captain NEITENSTEIN, the Comptroller-General of Prisons in New South Wales, refers to the special efforts which have recently been made in the way of reclaiming habitual drunkards. We must heartily welcome any efforts which can be successfully made in this direction, and we learn that regulations have been brought into operation "providing for a progressive stage system of treatment of a liberal and encouraging nature. Good conduct and industry are encouraged and rewarded by promotion in grade, each stage upward being marked by increased privileges, including the earning of a monetary remuneration, which not only allows of the purchase of small luxuries, but which further provides a sum of money to assist them when the time for discharge arrives."

In August, 1907, a commencement was made with two men and one woman. All three were habitual drunkards who had been the associates of low characters, and had been very frequently before the police courts. Since that date 20 men and 12 women have been received for treatment, and all of these belonged to the class of confirmed drunkards.

Several of these have completed the terms of detention ordered, but the terms have been extended, as it was recognised that for the effectual and permanently successful treatment of such unfavourable cases the further period of detention was desirable.

Of the results thus far secured, Captain NEITENSTEIN speaks in the most glowing terms. He says:—

"So far as the experiment has proceeded, the physical improvement of the inmates has been most marked. In the cases of the women it may fairly be termed remarkable. For years past they have not led such clean, wholesome lives as they do now, and the return of womanly self-respect is in evidence in the pride they take in keeping their outfits in good order, in decorating their quarters, in maintaining a neat appearance, and in the quiet orderliness of their demeanour. It is to be regretted that their cases were not taken in hand at an earlier stage."

But, unfortunately, the experience of all who have had much to do with chronic alcoholism, specially amongst women, is against the belief that the results obtained are likely to be permanent. The prolonged abuse of alcohol undoubtedly results in a weakening of the moral nature, and however well-meaning the victim may be, her power of resisting the temptation is so much weakened that she more often than not falls a victim to the craving. It is, moreover, well known that an inebriate may reform and live for some years a reformed character and yet ultimately die a drunkard's death. By these remarks we do not for a moment wish to disparage the efforts of those who are seeking to reclaim the drunkard. We only wish to point out that all statistics of the benefits of any particular method of dealing with this unfortunate class of the community are most fallacious. While the detention of habitual drunkards in a gaol or asylum may in a few

instances result in a permanent reclamation, we think that the method of dealing with them is of most benefit in the first instance to the wives and families of the victims.

The experience recorded in the report is also of interest as showing that in some cases at any rate the prolonged abuse of alcohol has not destroyed all the higher faculties and finer feelings, and that the most confirmed victims of the drink habit are yet capable of better things when compulsorily detained and placed in a suitable environment.

THE MONTH.

Intermediate Hospitals.

THE establishment of what might be called intermediate hospitals to provide for patients who financially are not suitable cases for treatment in a public general hospital, and yet who are not able to pay the ordinary fee of private hospitals, has frequently been suggested, and we learn from the *Age* that this matter is at present engaging the attention of the profession in Victoria. It appears that the Government recently gave the stamp of approval to an institution in Carlton, which, under new management is advertised as the "Sefton Public Hospital, under the supervision of the Government of Victoria." Patients who do not desire to enter the public hospitals, here receive medical and surgical attendance, nursing, medicines and dressings upon payment of fees ranging from £2 2s to £3 3s. Three prominent medical men are attached to the staff, and it is understood that they occupy salaried positions. The Medical Defence Association, at a recent meeting, had under consideration the bearing of a rule of the British Medical Association upon the action of the three medical men in attaching themselves to the hospital staff. This rule reads:—"The system of acting as medical officers of institutions managed and carried on by laymen for their own profit, and the touting or canvassing for patients directly or indirectly to join medical aid associations or similar institutions, are contrary to the ethics and inimical to the best interests of the profession, and any member so offending shall be deemed guilty of unprofessional conduct, and shall be dealt with in accordance with the rules of the Association, and no medical man

so transgressing shall be met in consultation by any member of this Association." It was not stated at the meeting that the "Sefton Public Hospital" was a private institution carried on for profit, but it was thought that some definite information should be obtained upon the point. The opinion was expressed that intermediate hospitals were desirable in the interests of the poorer classes, provided they were under direct Government supervision, and were so conducted that medical men might be attached to the staff without disturbing professional etiquette. It was also felt that the profession should know to what extent the Government proposed to deal with intermediate hospitals in the proposed Charities Bill.

Life Under Increased Atmospheric Pressure.

Under the auspices of the Royal Society of New South Wales, Dr. H. G. Chapman, the Demonstrator of Physiology in the University of Sydney, recently gave an interesting lecture on this subject. He mentioned the fact that while under natural conditions increased atmospheric pressure was rarely met with by human beings; it was a constant condition experienced by those engaged in diving and subaqueous engineering. In diving the increase of pressure was at the rate of 15 lb. to the square inch for each 33 ft. perpendicular of water. At great depths divers experienced difficulty of breathing while at work, and were exposed to more serious risks during their ascents. Recognising this risk, subaqueous workers came slowly from the depths so as to adjust the different conditions to their anatomy. Men who had to work in caissons were liable to similar dangers from decompression. Recent scientific observation and experiment had shown that these dangers might be entirely avoided. Under pressure increased quantities of gases were absorbed by liquids, and the gases bubbled off when the pressure was removed. Similarly the tissues of the body dissolved more gas under pressure than under normal conditions. The gases thrown off by the tissues produced the symptoms which occurred after decompression. It was not the actual pressure which produced the curious physiological effects, a fact which was shown by the delicate structure of the fauna found at great depths, and by direct experiment on the circulation of animals exposed to high pressure. It was Paul Bert who first gave the explanation of the symptoms produced in man under more than normal pres-

sure. Schrotter and Hill carried out experiments to determine the safe rate of ascent for divers, and the safe rate of decompression for workers in caissons. The limit of descent for divers and of compression was fixed by the amount of oxygen in the air, too large a proportion of oxygen producing symptoms of poisoning. Haldane's investigations for the Admiralty had shown that the diver should be lowered quickly to the depth at which he desired to work, and that he should be raised by stages, the time occupied at each stage being determined by the depth to which he descended and the time he remained at work. Many deaths have occurred amongst divers through a failure to understand the necessity for slow ascents.

The After Care of Consumptives in New Zealand.

The Health Department in New Zealand has established a camp at Whakarewarewa, near Rotorua, for men who are convalescing from pulmonary tuberculosis. Dr. J. M. Mason, the Chief Health Officer, recently paid a visit of inspection to this camp and reported that the men were in excellent spirits and working splendidly. The work they were engaged in was quite to their liking, and suited them well. The success of the camp is the more gratifying as it is not yet fully equipped, and the recent weather has been very severe. There were, however, no complaints, and the men were most enthusiastic. It is the intention of the Department to make the camp wholly self-supporting, and in this way open an avenue for men who hitherto have had a difficulty in obtaining employment. Charitably-disposed persons are invited to assist. The working of this institution will be watched with interest by those interested in the after-care of consumptives in Australia, and if it should prove to be as successful as it appears to be at present, perhaps some similar camps might be established here.

The Australasian Trained Nurses' Association.

The report of this Association, presented at the annual meeting held in Sydney last month, tells of steady progress in number of members and in general activity in the interests of the trained nurse. The number of members stood at 2304, as against 2119 at last report. In New South Wales there were now 35 medical and 24 nurse life members, 128 general nurses had been admitted to

membership, and 64 obstetric nurses had been registered by the obstetric section. A branch of the association was established in Western Australia at the end of 1907, and already appeared to be in a flourishing condition, with a membership roll of 133. This was largely due to Dr. Tymms, medical superintendent of the Perth Hospital, who with a large number of doctors and nurses in Perth had worked enthusiastically. Much interest was aroused by the revival of the bill introduced into the Legislative Council in 1906 for the registration of nurses in private hospitals. A special meeting of the association unanimously supported the Council, and adopted a resolution in favour of State registration under the supervision of a board appointed by the Government, provided that a fair proportion of nurses were members of the board. At the usual membership examinations held simultaneously in all the States under the control of the A.T.N.A. in December, 103 general and 46 obstetric nurses passed, and in June 46 general and 35 obstetric; the June results, however, excluding South Australia. The question of the insurance of members had been much discussed since the last annual meeting, and several societies had submitted policies offering very favourable terms. While of opinion that it was eminently desirable that nurses should make some such provision, the council had not so far deemed it advisable officially to adopt any one scheme as preferable to the others. The report was adopted. Subsequently a resolution was moved by Miss Godson to the effect that in the scale of nursing fees pulmonary tuberculosis and pneumonia should be classed as infectious, and the fees in these cases raised from £2 2s to £3 3s. After some discussion an amendment was moved by Miss Gould and carried which left fees unaltered, with the exception that a nurse engaged alone on a pneumonia case should receive £3 3s for the first week and £2 2s a week thereafter.

Public Telephones.

Some time ago we called attention to the dirty state of the public telephone boxes and to the danger of the spread of infectious disease from the repeated use of the telephone by all classes of people. That the risk of infection is no imaginary one is shown by the results of an investigation carried on by Professor Klein in London, at the request of Dr. F. Allan, the medical officer of health for the city of Westminster. These results are

reported in the *Lancet* of June 27th. The interior of the mouthpiece was swabbed out with cotton wool, and from one out of six of these swabs taken from different call boxes tubercle bacilli were found, both in film preparation and by inoculation on guinea-pigs. The risk of contracting tuberculosis is thus proved, and it is equally probable that influenza and diphtheria specially may be spread in this way. It is imperative, therefore, that some efficient method of ensuring the disinfection of the mouthpiece of public telephones *after each user* must be introduced — a daily disinfection is not sufficient.

Medical Registration in Tasmania.

An American medical practitioner, Dr. Gould, who holds the diploma of M.D. of Boston, U.S.A., and who has been the resident medical officer at the Homœopathic Hospital in Hobart for several months, has been refused registration by the Medical Board of Tasmania on the ground that his qualification was obtained after a shorter course of study than the five years now required by the general medical course of Great Britain, and that the possession of this degree alone did not entitle Dr. Gould to practice in the State of Massachusetts, in which the degree was conferred. Much discussion has arisen over the action of the Board, and conflicting legal opinions have been given on the question. Only quite recently a gentleman who had spent some 18 months in casual study at the Melbourne University and Hospital, went to Boston and returned within a year with the M.D. Boston degree. The Victorian Medical Board, knowing all the circumstances, first registered this practitioner and then complained of a defect in the Act under which they worked, which they alleged compelled them to register him. The Tasmanian Board have taken a bold stand and refused to register the holder of the same degree. As the Tasmanian Attorney-General stated, in reply to a deputation of homœopathic practitioners introduced by the American Consul, the Medical Board was appointed to safeguard the public from fraud, and we think that the board has acted, at any rate, in the spirit of the Act in refusing to register a medical practitioner whose qualifications do not guarantee an efficient course of study. If, on appeal, the Supreme Court grants to Dr. Gould a *mandamus* compelling the board to register him, then the only course open to the board is to resign or to continue to act only on

condition that the Medical Act is amended and brought up to date.

The Victorian Sanatorium for Consumptives.

At the annual meeting of the subscribers to this institution held in Melbourne on July 29th, the following resolution was carried— "That in view of the conditions laid down by the Government for the continuance of its financial assistance, and the lack of further support by the public, it is expedient to close the institution at a date not later than August 31st, and that the retiring committee be re-appointed and empowered to take the necessary steps to carry this resolution into effect." The President, in moving the adoption of the report and balance sheet, said the committee much regretted having to make its recommendations. The reason was patent, arising as it did from the exhaustion of its funds and the improbability of receiving sufficient public support to enable it to continue its efforts. It would be affectation not to ascribe the lack of public support chiefly to the hostility of a certain section of the press, whose criticism had been persistent ever since he had the honour of being president of the institution. The whole point at issue, he continued, between the Government and the committee was whether the institution should receive paying and partly paying patients or not. Mr. Short, the Inspector of Charities, was of opinion that it should discontinue the admission of paying patients altogether. The committee's reply had been that it could not undertake to do that unless it received a full guarantee from the Government against any liability or any loss that would be sustained by the institution in consequence of that policy. The Government would not give that guarantee. It cannot but be matter for regret that an institution for the treatment of consumptives on the most approved lines should be closed just now, when so much effort is being made to provide accommodation for consumptive patients. It is obvious that the management of the sanatorium has not commended itself to popular favour, and if the criticism offered be true, then there is no wonder that the Government and the general public have declined further financial assistance. The work of the sanatorium, however, must not be allowed to cease, and we hope some means will be devised to alter the condition so that the poor consumptives in Victoria shall not be denied the benefit of sanatorium treatment.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A MEETING of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on July 31st; the President, Dr. G. H. Abbott, in the chair.

The President announced the election of the following members:—Dr. E. H. Bottrell, Coast Hospital; Dr. James Paul, Gosford; and the nomination for membership of Dr. Mervyn Archdall, Sydney Hospital; Dr. Hans Müller, Albany.

Dr. F. G. GRIFFITHS read a paper on "Arneth's Classification of Neutrophile Leucocytes and its Application in Pulmonary Tuberculosis."

Dr. GILL said that Dr. Griffiths' paper should not go without remark. The labour involved in preparing the paper must have been very considerable; and he thought that the thanks of the meeting were certainly due to the reader of the paper for bringing Arneth's work before them. As far as he knew, Arneth's work was not accessible to English readers. He would like to know whether Dr. Griffiths had made any use of this method as a guide in the administration of tuberculin?

Dr. GRIFFITHS replied he had not used Arneth's method to determine the size of the dose of tuberculin. It took at least an hour to make such observations, but this was not so tedious as opsonic work, and had the advantage of not being so fluctuating. Arneth's work was, however, very useful in gauging the effect of treatment and in prognosis; thus if a bad neutrophile count was obtained one might be almost sure the patient would die.

Dr. CHARLES MACLAURIN read a paper on "The Shelf Operation for Movable Kidney."

Dr. T. FIASCHI agreed with Dr. MacLaurin that Harris' method was a good one. Movable kidney often gave rise to a good deal of difficulty in diagnosis, and the abdomen was often opened, suspecting something quite different, to find that the symptoms were due to movable kidney. He would suggest that Bishop's method should sometimes be combined with Harris'.

Dr. GILL agreed with Dr. MacLaurin as to the undesirability of operating on movable kidneys in neurasthenic patients. At the same time there were a certain number of patients who suffered a good deal of pain from a displaced kidney, or who had been told that they had movable kidneys. In such, an operation could be recommended, provided that neurasthenic symptoms were not too pronounced.

Council Meeting.

The Council met at the Association room on Tuesday, July 14th, 1908. Present: Drs. G. H. Abbott, Hinder, Crago, Rennie, Palmer, Maitland, Pockley, Brady, Jenkins, Clarence Read, Worrall.

The minutes of the previous meeting of June 9th were read and confirmed.

The Hon. Treasurer reported the following credit balances:—General account, £788 17s 4d; *Gazette* account, £480 16s 2d.

The following gentlemen were elected:—Dr. E. H. Bottrell, Neutral Bay; Dr. James H. Paul, Gosford.

Letter from Dr. Boyes, of the Border Medical Association, with reference to the membership of that Association, and asking if the Branch would allow 6s per year from the annual subscription. Resolved—That the matter be deferred.

Letter from Hon. Secretary of Western Suburbs Medical Association re meeting of homœopaths. Resolved—That the Hon. Secretary of Western Suburbs Medical Association be informed that the resolution of October 15th, 1905, is still extant, and if any further action is required full particulars must be supplied with the name of practitioner and full inquiries be made from both parties.

Letter from Dr. J. Booth Clarkson re the Model Lodge Agreement. Received.

Letter from Dr. Humphrey, of Lismore, re formation of local association. Hon Secretary's action approved.

Re hospital cards. Resolved—That copy of card be sent to the various hospitals drawing attention to it, and asking if they are aware of the matter, and pointing out that the issue of such cards may lead to hospital abuse if not stopped.

American Fleet.—Entertainment of the surgeons of the Fleet. Resolved—That a sub-committee be appointed to deal with the matter; Drs. Worrall, Brady, and Palmer to be the sub-committee.

Letter from Dr. Purdy re Lodge Agreement and membership of the Branch. Hon Secretary's action endorsed.

Dr. WORRALL moved—That a sub-committee be appointed to consider the purchase of a suitable site and building for Branch premises. The sub-committee to consist of the President, Treasurer, and Dr. Pockley. Seconded by Dr. Hinder.

Dr. WORRALL moved—(a) That the contributors to the arranged programme of business for the general meetings be asked to temporarily withdraw their papers for the specific date, in accordance with the wishes of members at the meeting on June 26th—that the programme be re-arranged. (b) That the Medical Secretary consult when possible with the Council as to the arrangement of the business for meetings. Seconded by Dr. Hinder. Carried.

Dr. HINDER reported that there was no business for the next clinical meeting, which would now lapse.

Dr. PARRY, of Picton—*Re* examination of wives for admission to lodges. Hon. Secretary's action endorsed.

Letter from Mr. T. H. Murray, of A.N.A., asking for interview or conference. Resolved—That the conference requested by Mr. T. H. Murray be not granted, and a courteous reply be sent.

Letter from Dr. Vernon, of Upper Burragorang, re agreement with the miners. Certificates to be paid for.

Letter from the editor of *The Chemist and Druggist* with reference to morphia prescriptions. Resolved—That a summary of the letter be published in the *Australasian Medical Gazette*. (2) That from the facts before the meeting the Council is of opinion that such prescriptions should not be repeated without proper authority being given each time by the medical man.

Letter from Dr. Davies, of Lockhart. Resolved—The Council of the New South Wales Branch of the British Medical Association desires to express its sympathy with Dr. T. Sydney Davies, L.R.C.P. (Edin.), L.R.C.S. (Edin.), L.F.P.S. (Glas.), of Lockhart, New South Wales, in the trouble and expense to which he has been put in order to vindicate his professional status against false assertions, and congratulates him on the successful issue of the action which he brought in the Supreme Court.

Victoria.

THE ordinary monthly meeting was held on August 5th 1908, the president (Mr. G. A. Syme) in the chair, and 24 members present.

The PRESIDENT referred to the death of Sir Thomas Fitzgerald, and moved that a letter of condolence be sent to his relatives. The motion was seconded by the vice-president (Dr. Cuscaden) and carried in silence.

Dr. HERMAN LAWRENCE exhibited the apparatus for the application of Finsen's light to lupus, etc., as used in Copenhagen and in the London Hospital.

Dr. LAWRENCE also read notes upon Syphilis and Skin Diseases, taken at the sixth international dermatological congress recently held in New York. His abstracts of some of the papers read and accounts of cases shown were of great interest.

Dr. JULIAN SMITH read a paper on the Cystoscope. After detailing the evolution of the cystoscope from the earliest attempts at seeing the interior of the bladder up to Nitze's latest instruments, he narrated a series of cases illustrating its use in the differential diagnosis of various diseases of the genito-urinary tract and in their diagnosis from other abdominal and pelvic lesions.

In discussing the paper, Dr. D. M. MORTON also referred to cases in his own practice, and asked members who had old cystoscopes to lend them for the congress museum. He had promises of some of the earliest forms and hoped to get a complete series.

Dr. ROTHWELL ADAM exhibited a uterus which he had removed from a primipara a few days after parturition. The patient had been delivered of a live full-time child by Dr. W. A. Wood. The placenta had had to be removed manually, and in doing so Dr. Wood had felt what he considered was a large pedunculated intrauterine myoma. A day or two later the temperature began to rise with offensive lochia and an exceedingly rapid pulse. The patient was then seen by Dr. Adam and removed to private hospital. There Dr. Adam first attempted to remove the tumour per vaginam, but without success. As the patient's condition was bad, the abdomen was opened rapidly and the uterus and tumour were removed by sub-total hysterectomy. The patient was now, four weeks after operation, about to leave the hospital. The tumour, as suspected, was a myoma of considerable size, and the wonder to Dr. Adam was that she had been able to carry the child to full term in the presence of such a tumour.

South Australia.

THE ordinary monthly meeting was held at the University on Thursday evening, July 31st. Thirty-five members were present. The Vice-president (Dr. W. A. Verco) in the chair.

Living Exhibits.—Dr. W. A. GIBBS showed a youth upon whom he had performed the forequarter operation for a periosteal sarcoma of the upper end of the left humerus, the result of an injury.

Dr. H. S. NEWLAND showed an infant illustrating a good result of an operation for cleft palate and hare-lip.

Pathological Exhibits.—Dr. T. G. WILSON showed a myomatous uterus removed by supra-vaginal hysterectomy. The interest of the specimen lay in the family history. The patient was the tenth of the family to be operated upon for myoma of the uterus. Her grandmother, three aunts, four cousins, and one sister all suffered from the same trouble.

Dr. T. G. WILSON also showed a specimen of a degenerated myoma of the round ligament. The pedicle was twisted through 180°. It was adherent to the omentum, from which it derived its blood supply. The veins in the omental adhesion were enormous.

Dr. A. E. WIGG showed a huge hydatid cyst which he had removed from the liver of a patient, who, unfortunately, succumbed after the operation.

Dr. GIBBS showed a specimen of a pericosteal sarcoma of the humerus (vide supra.)

Dr. H. S. NEWLAND showed skiagraphs of—(1) Tubercular hip. (2) Calculus embedded in lower end of the left ureter. He expressed the opinion that it would be passed naturally. (3) Old excision of elbow, in which an admirable result was obtained. (4) Myeloid sarcoma of clavicle.

The minutes of the previous meeting were taken as read.

Papers—

Dr. WELLS then read a paper on "The Lacey Case." (See page 438).

Dr. W. T. HAYWARD introduced the discussion by making a communication from the Medical Defence Association. (See page 439).

Dr. STIRLING said that the matters brought forward showed that medical men had been placed in a quandary. He thought any action that was taken should come from the Branch of the B.M.A., as what had happened to Dr. Wells might happen to anyone. He thought that the Council and others should form a committee who should make a clear presentation of Dr. Wells' case, and include the Coroner's statement and the opinion of Mr. Murray, K.C., for submission to the Attorney-General for his decision on the points at issue.

Dr. H. SWIFT seconded.

Dr. J. A. G. HAMILTON sympathised with Dr. Wells, and thought it was wise to approach the Attorney-General. He said that often when suspicious circumstances were reported the Coroner took no action. He considered that the Coroner used his position to vent his spleen against the hospital, the university and the medical profession.

The following gentlemen were appointed to form a committee to wait on the Attorney-General:—The Vice-president (Dr. A. Verco), Drs. J. C. Verco, Stirling, Hayward, J. A. G. Hamilton, T. K. Hamilton, Symons, Swift, Masters, Gunson, Mainwaring and Poulton.

Dr. CUDMORE then read his paper on "Foreign Bodies in the Esophagus."

Dr. A. E. WIGG mentioned that Dr. Cudmore had omitted the use of emetics in the treatment. In two cases in his experience apomorphine had dislodged a bone and piece of potato.

The VICE-PRESIDENT mentioned two cases. In one he had removed a bone with an umbrella probang, and in the other a tooth plate had been vomited.

The meeting then terminated.

West Australia.

THE ordinary monthly meeting was held at the Perth Public Hospital on July 15th, 1908. Present: Dr. Seed (in the chair), and 18 others.

The minutes of the previous meeting were read and confirmed.

Correspondence.—A letter was read from Dr. T. H. Lovegrove, thanking the Branch for the letter of appreciation sent to him in accordance with the motion of the June meeting.

Report of Sub-committee on Midwives Bill.—The report of the committee appointed to consider the proposed Midwives Bill for West Australia was received and adopted, and it was decided that a copy of the committee's recommendations be sent to the Colonial Secretary.

The meeting then adjourned to the electrical department of the hospital, where Mr. W. J. Hancock, the

radiographer to the hospital, gave a most instructive series of notes upon and demonstrations of electro-medical apparatus.

At the conclusion of the lecture a hearty vote of thanks was accorded to Dr. Hancock, on the motion of the President.

Alterations and additions to the new Health Bill recommended by the Bill Committee:—

Your Committee have duly considered the clauses of the new Health Bill dealing with midwives, and beg to recommend as follows:—

Sec. 259. (1) That the words "residing within a radius of five miles from the residence of a legally qualified medical practitioner" be deleted.

Explanation.—There is no valid reason why a person residing outside this area should be entitled to use the name or title of "midwife" or "midwifery nurse." Sub-section 2 would still allow such a woman to attend for gain midwifery cases lying outside such an area, which seems to be all that is necessary to enable such way-back areas to obtain midwifery nursing of some kind at least.

Section 263.—Add sub-section requiring re-registration of midwifery nurses annually without further fee, and also notification of any change of address.

Additional sections.—The Central Board may make regulation for the supervising, regulation and restricting within due limits the practice of midwives and for any other purpose tending to protect the lives of mother or infant.

In any case in which any regulation framed by the Central Board of Health demand that midwives shall call in a medical practitioner, the Central Board of Health shall have power also to pay to the medical practitioner such fees as it shall consider just for such attendance.

(In the regulations framed by the Central Midwives Board of England and Wales there is laid down a list of conditions likely to occur during confinements in which the midwife must decline to attend alone and must advise that a medical practitioner be summoned. There is, however, no provision for the payment of the practitioner in indigent cases. The suggested sub-section is designed to prevent that difficulty arising in this State.)

Any woman who, within one year from the date of the Act coming into operation, claims to be certified under this Act may be so certified provided she produces evidence satisfactory to the Board that at the passing of the Act she had been for at least two years in *bona-fide* practice as a midwife, and that she bears a good character, and that she produces evidence of competency and cleanliness.

Australasian Medical Congress.

The General Secretary supplies the following information in regard to Congress arrangements:—

The eighth session of the Australasian Medical Congress will be held this year at Melbourne, commencing on Monday, October 19th, and terminating on Saturday, October 24th.

The Railway Departments in every State have consented to grant concessions similar to those in force at previous Congresses, and the various steamship companies have promised liberal concessions. The local secretaries in the different States have the necessary forms, and will send them to any member who applies for them. Members must secure these certificates if they wish to avail themselves of the concessions.

Owing to the Congress dates being close to those of Cup race meetings, Melbourne hotels and boarding-houses will be in demand, and members are therefore advised to secure what accommodation they require early. A circular has been prepared which gives detailed information with regard to the leading hotels and boarding-houses. This circular may be obtained from the local State secretaries.

The Senate of the University of Sydney on May 7th, 1908, passed a resolution granting permission to University Professors and Lecturers in the Medical School to attend the Australasian Medical Congress to be held in Melbourne. Adelaide and Otago Universities also agreed to similar resolutions.

The Governor-elect of Victoria has kindly promised to be present at the inaugural meeting, the Congress dinner, and the President's reception. Vice-Admiral Sir Richard Poore has granted his patronage, and has promised, if possible, to depute a member of his medical staff to attend the Congress. Invitations have also been sent to the Royal Army Medical Corps in India and to the Indian Medical Service to send representatives.

The sub-committee entrusted with the subject of syphilis finding that the material promised was extensive, it is at present suggested by the executive committee of the Congress that each section should be asked to devote its first meeting to a discussion on syphilis, and to appoint a speaker to represent its views on the subject at a general meeting to be held on Friday, October 23rd.

The question of the relation of the Medical profession to hospitals will be fully discussed at a general meeting of Congress to be held on Wednesday, October 21st. The resolutions to be submitted to this meeting are being carefully considered.

Arrangements for sectional work are well forward, and it is hoped that members intending to read papers will forward the title of their papers as soon as possible. It is intended to publish extracts of papers for circulation amongst members to facilitate discussion, and the first printing of abstracts may be undertaken early in August, and a later printing early in September. Members are therefore urged to forward abstracts of their papers at an early date, as these arrangements are only approximate, and depend on how many abstracts are received.

The Congress Museum promises to be a prominent feature of the meeting, and members who have valuable specimens are invited to give notice of their intention to exhibit. The Electrical Section of the museum will be provided with the constant current.

The arrangements for entertaining members are far advanced, but not yet complete, and include—The Congress dinner, to be given by Victorian members to visiting members on Wednesday evening, October 21st; the ball, given by Victorian officers of the A.A.M.C. on Thursday evening; the President's reception at the University on Friday evening; Henley on the Yarra, with a Congress house-boat, on Saturday afternoon and evening; and a reception at State Parliament House, given by the President of the Legislative Council and Lady Wrixon on the evening of Monday, October 26th. Garden parties are to be given by the President of the Victorian Branch of the British Medical Association and Mrs. Syme on Tuesday, and by Mrs. J. F. W. Payne on Wednesday afternoon. Other social gatherings are being arranged.

The work of the Executive Committee will be greatly facilitated if those who intend to become members will forward notice and subscriptions accordingly without

delay; and if those who intend to contribute papers or exhibits will inform the general or State secretaries of sections as soon as possible.

Visiting members are again advised to secure accommodation at once, and to communicate their Melbourne address to the general secretary or State secretary, stating what members of their families will accompany them, for the purpose of invitations, etc.

The following are the names and addresses of the secretaries:—

General Secretary—Dr. H. Maudsley, 8 Collins-st., Melbourne.

State Secretaries of Congress:

New South Wales—A. A. Palmer, M.B., C.M., F.R.C.S. (Edin.), 149 Elizabeth-street, Sydney.

New Zealand—North Island: Tracy R. Inglis, M.B., B.S. (Melb.), Ponsonby-road, Auckland. South Island: F. Stanley Batchelor, F.R.C.S. (Eng.), L.R.C.P. (Lond.), 236 George-street, Dunedin.

Queensland—W. W. R. Love, M.B., C.M. (Edin.), Wickham Terrace, Brisbane.

South Australia—J. B. Gunson, M.B. (Adel.), M.R.C.S. (Eng.), Angas-street, Adelaide.

West Australia—A. J. H. Saw, M.A., M.D., B.C. (Cantab.), 484 St. George's Terrace, Perth.

Tasmania—Gregory Sprott, M.D., Ch.M., D.P.H. (Glasg.), 46 Macquarie-street, Hobart.

Some Literary Notes

Messrs. Baillière, Tindall & Cox announce an interesting list of new books for publication in the early autumn.

For the ophthalmic surgeon there are the following: A translation of Prof. Axenfeld's well-known treatise on "Bacteriology of the Eye," by Angus Macnab, F.R.C.S., and "Cataract Extraction," by Lieut.-Colonel H. Herbert, F.R.C.S., late of the Indian Medical Service. His vast experience in this branch of medicine will render this work the most authoritative on the subject published in recent years. The gynaecologist and obstetrician will find themselves well catered for in "Operations upon the Uterus, Perineum and Round Ligaments," by Dr. W. J. Stewart McKay, and "Operative Midwifery," by Dr. J. Munro Kerr (both works will be elaborately illustrated); "Physiological Principles in Treatment," by Dr. W. Langdon Brown, F.R.C.P.; "The National Physique," by Dr. A. S. Dutton. This work, we learn, is the result of observations extending over a number of years, made from samples of blood taken from people of all classes of the community and of all ages throughout the country. The last two books mentioned will be interesting reading to the physiologist.

The same firm also announce the approaching publication of several other works of more general interest. Amongst others we may mention a translation of Professor Dieulafoy's classical "Textbook of Medicine," by Dr. V. E. Collins; "The Legal Responsibility of the Drunkard," by Dr. Norman Barnett; "A Compendium of Food Microscopy," largely based on the original research of the late Dr. A. H. Hassal, by Mr. G. E. Clayton; "Mental Deficiency," by Dr. Tredgold; and "Tuberculosis in Infants and Children," to which about forty medical men throughout the world are contributing under the editorship of Dr. T. N. Kelynack.

The dinner to be given by the medical profession of New South Wales to the surgeons of the United States Fleet will be held on the 25th instant. Tickets can be obtained from Dr. Arthur Palmer, 149 Elizabeth-street, Sydney.

The Sydney Norland Institute

For the Training of Educated Girls in Nursery Nursing.

In the more advanced countries of the world there has been for the last 20 years a decided movement towards giving girls, and especially those with whom it is to be a profession, a special training in the rearing of infants and young children, because it has been recognised that something ought to be done to obviate the possibility of accident, too often with a fatal termination, that has been traceable to irresponsible and untrained labour. Furthermore, the public are beginning to understand the development of the child mind and to know the importance of the physical condition advancing at the same rate as the brain.

The first stage of the infant's *ex vivo* existence is well provided for, as it has a fully qualified maternity nurse to look after it. But at the age of a month or six weeks the maternity nurse leaves, and the subsequent existence of the child becomes extremely doubtful, for it has then to depend upon the instinct of the mother, the solicitude of the father, and, in the cases in which I shall deal in this paper, the humanity of the nurse-girl. The instinct of the mother and the solicitude of the father are very good so far as they go, but they do not go far enough, and the humanity of the nurse-girl is extremely variable and generally a small quantity.

There are two kinds of domestic nurses who may be engaged, either the raw nurse-girl, who has perhaps been out as kitchenmaid, housemaid, and so on, and takes to nursery nursing in order to have an easy time. This class of girl is very dangerous, as having a person to take charge of the child, the mother is not always with it, and half-an-hour has proved to be quite long enough for the ignorant girl to do a great deal of harm. She does not understand the hidden dangers of a dirty bottle or the results of a fall, which may be the forerunner of so many evils.

To overcome the irresponsibility of the young nurse-girl, many people employ what are by courtesy called experienced nurses. The word is quite a misnomer, as the experience gained is of variable utility and has generally been acquired in many nurseries and under mothers who knew no more about the scientific methods of rearing children than she knew herself. The consequence is that her knowledge is a heterogeneous muddle. The greatest danger of these women is that they think they know enough to safely drug the child with sleeping draughts, teething powders, and so on. When their charges are not well they are far too inclined to administer quack remedies without calling in medical aid.

These are the two classes from which the child's nurse is chosen, and there is little wonder that there are so many white-faced, thin-legged children in Sydney. They mostly suffer from malnutrition. The art of feeding a child is not generally understood, and unless the nurse has a sense of responsibility she will not spend more time than is necessary in giving the child just enough to satisfy its hunger. In consequence of this the child appears to be hungry at all times, whereas the truth is that it is never given a proper meal and it will not take sufficient of its own accord. Not only is the child neglected at table, but also when out in the open air, as a visit to the parks around Sydney will testify. The nurse-girl rarely interests herself in her charge; she more often discusses mistresses and wages with her friends of the moment.

In order to have children reared in a scientific and hygienic manner it is essential that mothers and nurses should understand their work. Unless they do, they should not take the responsibility of that fragile bundle

called a baby, and experiment to the permanent detriment of its health. The old rule of thumb methods are dying out in all professions, training and specialisation are taking their place, and so must it be with child-rearing. The trained nursery nurse has come to stay.

Eighteen years ago in England, Mrs. Walter Ward founded the Norland Institute, the first training college for educating the future mothers and children's nursery nurses. At the inception of the scheme in Sydney an endeavour was made to interest the public to get it to subscribe to the foundation of an institute, and in the process the Norland Institute of London was so often referred to that the name became associated with the idea, and the name was retained. A few pounds were subscribed, but the sum was quite inadequate, and the scheme would have fallen through had not Mrs. Greig-Smith come forward and provided the funds for starting the institute. The money subscribed by the public was, with the consent of the donors, made the nucleus of the Loan Training Fund, which is a means of assisting eligible girls to become trained. The public did not respond at the opportune time, but now that the workability of the scheme has been demonstrated, it is coming forward to reap the advantages offered by the training. The fees have been made exceptionally low with the idea of giving as many girls as possible this important education, and the hope of the founder is that it may in time pay its way. As it is, circumstances may arise which may necessitate either a shortening of the course or an increase in the fees. Directly the institute pays its way arrangements will be made to extend the work to the country districts and to supply free education in this work of child rearing to the poor.

The students of the Sydney Norland Institute enter the institute for one year's training; the course is so mapped out as to make a woman able to faithfully fulfil the obligations of either mother or nurse. The training is divided into four parts, in each of which a separate branch of work relating to the care of children is taught. During the first three months' residence in the institute, lectures are given upon physiology, first aid, nursery hygiene and milk. Practical work is undertaken in the making of every sort of infants' food; the dangers of the feeding-bottle with its microbe-carrying teat and valve are emphasised. The making and mending of simple clothes for infants and little children, children's cookery and laundry work are also important features in this course.

After the first three months the student passes on to hospital experience, where she finds her powers of soothing and also amusing children put to the test. She learns the quick and comfortable handling of children who may, through ill health, be inclined to be irritable. The value of this course cannot be over-estimated, for by its means the student thoroughly realises that sick children can only be rightly cared for by experts, and care is taken to show them never to endanger the life of a child of whom they have the charge by endeavouring, either as mother or nurse, to defer the calling in of the medical practitioner. This, however, she would not naturally do, as with training comes a sense of responsibility, and no desire is felt to do work other than that which can be performed to the best advantage.

At the completion of the hospital course the students return to the institute to undergo the kindergarten training. Nature study, brush work, and kindergarten songs and games are made special features; the students gain practical experience by watching and helping in the kindergarten schools. By this training they gain the

experience necessary to amuse and interest the older nursery children.

The fourth and final period is spent in the Sydney Norland nurseries, where the nurse, who is always under the observation of a fully qualified Norland nurse, takes charge of a little model family of three children. Her methods and her tact are most carefully watched so that her natural adaptability for infants or older children may be taken into account in finding her a situation. The nurseries will not be opened until November 10th. They are intended for children whose parents are travelling, or in the case of non-infectious illness in the home. Had the nurseries been open now they would have been fully occupied, for many parents have applied to the Sydney Norland Institute for their children to be temporarily taken care of.

The Sydney Norland Institute asks a salary of £40 per annum for its best students, and this salary is being readily and freely offered by the public; in fact, there are over 30 definite applications for the nurses directly they shall be qualified. Some parents, knowing the value of this work in England, have given donations to the Loan Fund on the understanding that the student they have helped to train may be kept for them. It is scarcely to be wondered that this training is meeting with so much appreciation, as it is almost impossible at the present time to obtain a lady capable of taking a rational and responsible charge of children.

Two objections to the trained nursery nurse have been raised by unthinking people. The first is that she will interfere with the work of the trained sick nurse. This could not possibly occur; neither has it in England, America, Canada, Germany, or South Africa, where the scheme has been in vogue for years. The object of the training is to teach mothers and nurses to rear their children to the best advantage; the ambition is to keep a healthy child well and to make a delicate child strong by means of trained care. Should, however, the child fall ill the nursery nurse, from her hospital experience, has seen that she is in no way qualified to tend a really ill child, and neither is her salary such as to warrant her risking her life with an infectious disease, nor her reputation by losing the child.

The second exception taken to the training is that the trained nursery nurse will make the mother feel her responsibility less. All that can be said to this is that mothers who have meant to neglect their children in the past have not waited the advent of the trained nursery nurse. No doubt certain mothers have disgracefully neglected their children, and it would undoubtedly be better for the children in such cases had the mothers had the opportunity of employing trained labour. The mother who has not neglected her children will not do so, although the trained nursery nurse will be of the greatest advantage to her.

It is not only the rich for whom this institute caters, but for the tired mother, who may be poorer and who may have a large family. She will be able to engage a visiting nurse from the institute for part of each day at a small salary, when she will have a certain number of hours for recuperation, feeling that her children are in safe keeping.

The work of the Sydney Norland Institute, both by the training of nursery nurses and by the dissemination of knowledge, should do much to decrease the rate of infant mortality and to increase the population more than did the Royal Commission which sat in Sydney some time ago.

GRACE BOELKE, M.B., SYDNEY.

OBITUARY.

By the death on July 8th last of Sir THOMAS FITZGERALD not only has the medical profession of Victoria lost one who was for many years indisputably its leading surgeon, but Melbourne has lost one of its best-known and most respected citizens.

The son of a graduate of Trinity College, Dublin, he was born at Tullamore, Ireland, on August 1st, 1838, so that he was within a month of completing his 70th year. The main part of his medical training was received at Mercer's Hospital, Dublin, where he was a pupil of the famous surgeon, Mr. Butcher. He qualified L.R.C.S., Ireland, in 1857, and in July, 1858, arrived in Melbourne. Immediately upon his arrival Mr. Fitzgerald was appointed house surgeon to the Melbourne Hospital during the absence in Great Britain of Mr. E. M. James to complete his course. On the return of Mr. James, Mr. Fitzgerald commenced private practice in Lonsdale-street. At this period he was nearly lost to Melbourne, as he only missed being appointed surgeon to the Bendigo Hospital by the casting vote of the chairman, which was given to the now veteran Dr. H. L. Atkinson. In 1860 Mr. Fitzgerald was appointed full surgeon to the Melbourne Hospital, and from then for 40 years his career was one of unexampled success. On his retirement a few years ago he was appointed consulting surgeon, a position which he held until his death. In 1884 he visited Ireland and presented himself for the examination for the fellowship of his old college, in which he was successful.

In 1897, on the occasion of the Diamond Jubilee of the late Queen Victoria, he was singled out for honour, and had conferred upon him the title of Knight Bachelor. In 1900 Sir Thomas went to South Africa under appointment by the British Government as consulting surgeon to the Imperial forces then engaged in the Boer war. His services there were recognised by the British medical press as being exceptionally valuable, and he received the further distinction of the Companionship of the Bath.

Sir Thomas was a life member of the Medical Society of Victoria, of which he was twice president, and he was also president of the Intercolonial Medical Congress of 1889. Other positions held by him were those of consulting surgeon to the Queen Victoria, St. Vincent's, and Austin Hospitals.

* Soon after Sir Thomas Fitzgerald's return from South Africa he retired from active work at the Melbourne Hospital, and also gave up the greater part of his private practice, and it was only too evident that his health was beginning to fail. Since then he had been several times laid aside by illness, and last year he took a trip to England in search of health. He was little, if at all, benefited thereby. On June 27th last he embarked on the a.s. Wyreema to exchange the cold of a Melbourne winter for the more genial climate of Northern Queensland. The voyage resulted, to the deep regret and sorrow of all, in his death on board between Cairns and Townsville on July 8th.

Sir Thomas married in 1870 Miss Robertson, of Tasmania, who died in 1890. He leaves three daughters, one the wife of Captain Lumsden, R.N.

Sir Thomas Fitzgerald was an Irishman of the best type. In stature he was below the medium height, but more than ordinarily broad and sturdy, with upright carriage. His large head with its massive brow commanded immediate respect. He was a man who lived his life to the full whether at work or at play. Calm, serious and dignified as he was in all his work, he was able when the arduous and trying duties of the day

were over to throw himself with seeming abandon into the pleasures of life. The dignity and honour of his profession were always upheld, and few men had higher ideals or so consistently lived up to them. As with all men of his active temperament, his friends were more among the younger generation than of his own, and many of the present generation of surgeons owe very much more than mere professional knowledge to his friendship, his example, and, not infrequently, his generosity. Like all Irishmen, he was a good judge of a horse, and at one time owned several horses which he raced with considerable success under the name of Mr. T. Naghten. His tennis court at Rostella was until quite recently one of the most used private courts in Melbourne. His custom was to begin the day with a game in the early morning.

The remains of Sir Thomas Fitzgerald were brought to Melbourne and interred in the Melbourne General Cemetery on July 24th. Seldom has such a representative body of men gathered to pay the last tribute of respect as was to be seen on that day. Thus passed with due honour to his last rest the greatest surgeon Australia has yet seen—one who was not only a great surgeon but a great man.

Dr. W. Moore writes:—The late Sir Thomas Fitzgerald was a great hospital surgeon. Qualified very young, he had the good fortune to become attached to the Melbourne Hospital when he was twenty years of age. After less than two years as a house-surgeon, he became honorary surgeon to the hospital, with the full responsibility of the treatment of all kinds of cases. He used occasionally to talk of those days, and it was clearly evident that he met his responsibilities with confidence and remarkable courage. With his great natural ability and his wonderfully skilful hands he made full use of the opportunity that was thus given him, and quickly became one of the most dextrous of operators. Shortly afterwards the medical school was started, and soon there were medical students accompanying him around the wards. This was a further stimulus, and the great surgeon became a great teacher. At the end of 1879 the writer began hospital work. Mr Fitzgerald was then at the zenith of his fame and of his skill. Regularly on Wednesdays and Saturdays at 9 o'clock he visited the wards, and was accompanied by almost all the students in attendance at the hospital. Such crowds are never seen now. Whilst he took a good deal of trouble in teaching it is probable that he taught, the advanced students at any rate, much more by what he did by his methods of examining and of treating patients than his set oral teaching. He was very rapid in all his work, but, at the same time, most careful as to details; and his skill in making out the exact pathological condition under notice was little short of marvellous. The way he would discover a fracture of the fibula, detect deep fluctuation, and define a small abdominal tumour was little short of marvellous. In actual work, in all the details of operating, and in all the mechanical treatment of cases he was a master. His thorough training was shown in the fact that he was always ready to complete his work himself, even to the smallest detail. Probably no man was ever more expert at introducing and tying sutures. He was in possession of all the "rinkles," and he seemed to tie knots by jugglery. Many years ago I saw him make use of the now fashionable mattress suture to so cover up a sutured tendon that it would not become adherent to the skin. Sir Thomas Fitzgerald's style of operating must have been the style of the best men who saw the dawn of anaesthesia in surgery. Reading an account of the removal of the upper jaw by Butcher, Sir Thomas' teacher in



THE LATE SIR THOMAS N. FITZGERALD, C.B., F.R.C.S.I.

surgery, one could almost imagine that he was watching Sir Thomas doing the operation. He first made in his mind a plan of all that he was going to do; he then proceeded to do it very rapidly; he paid little heed to bleeding until the cutting part of the operation was finished; then the hæmorrhage was attended to, and he was remarkably quick at securing bleeding vessels. Before the days of the Spencer Wells forceps he would seize all the arteries and twist them by means of the old-fashioned awkward torsion forceps. He was a great believer in torsion. I have seen him in an amputation of the thigh in an old man with calcareous vessels twist the general artery in wide sweeps, saying that he was afraid to tie it lest secondary hæmorrhage should follow; the patient did well, and there was no subsequent hæmorrhage. His plastic work was very fine. He was a great expert in hare-lip and cleft palate operations. It was a treat to see him introduce the sutures in a cleft palate by means of the needles introduced by himself, and now used in some of the London hospitals. In remedying deformities about the face or elsewhere, in closing gaps made by the removal of much skin, he showed much ingenuity. Excisions of the knee and elbow were great operations with Sir Thomas Fitzgerald, and he did them about as well as they can be done, and his results were generally as good as they deserved to be. His skill in cutting the bones in an excision of the knee so that they would fit accurately was quite phenomenal; and in the elbow his after-treatment was as good as his operative.

His long years of service at the Melbourne Hospital gave him a very wide experience in the treatment of fractures, and he could give valuable teaching in that subject. He made various modifications of splints. He was very early in the field in the treatment of fractured patella by wiring, and this operation he performed with excellent results, both in recent and in old cases. In oblique fractures of the leg where the lower fragment was drawn upwards he frequently divided the tendo Achilles.

Twenty-five years ago subcutaneous surgery was thought much more of, and was much more extensively practised than it is at present. In this line of surgery Sir Thomas can have had few rivals. In the treatment of talipes he used the tenotome freely, and his chiselling of the bones was also for the most part subcutaneous. In hip-disease he would freely divide the adductors at their origin, and even the rotators of the limb. His operation for the radical cure of hernia by subcutaneous suturing with gold wire required great skill and wonderful delicacy of touch. It was an operation that probably none but he could do, and it is well that it has been displaced in these days by simpler and more obvious methods. Another field in which Sir Thomas was in the van was the treatment of cases of out-throat. As long ago as the very early eighties he recommended and practised in cases of severe out-throat, in which the air-passages were opened, the complete and accurate closure of the wound with, in some cases, the performance of a tracheotomy lower down.

Much more might be said on the distinctive features of Sir Thomas Fitzgerald's surgery in almost every other branch, but enough has been written to show that he was much more than a great craftsman. He was in every sense a great surgeon, great in diagnosis, great in treatment. He was also a splendid colleague, thoughtful, loyal, generous—of this side of his character it is naturally much harder to write. The whole profession was aware of his loyalty, not a few recognised his thoughtfulness, and there were many who experienced his generosity. He was fond of the younger members

of the profession; he liked to have them with him, whether at work or in his pleasures; and he always treated them well. His kindness was so open and natural; there was never in it the suspicion of patronage; indeed, his generous acts were often done as though he were the recipient and not the giver of a favour. It is hard to think that he has gone from us for ever, but it is good to think of the great name that he has left behind, and no one who knew him is ever likely to forget him.

Another member of the medical profession who was beloved by many generations of students at the Melbourne Hospital was Dr. J. R. MACINERNEY. His death occurred on July 22nd last at his home at Fitzroy, Melbourne, after a short illness, at the age of 56. He was for many years honorary physician at the Melbourne Hospital, until, in 1902, an adverse vote of the subscribers displaced him. There was then a vacancy on the staff of the Alfred Hospital, and the position of honorary physician there was offered to him and accepted. This position he held until his death. As a teacher he appealed especially to those students who realised that there was a professional life beyond the examinations. He was a physician of wide clinical experience, hospital and private, and his teaching was eminently practical. He was an enthusiastic tennis player, and played continually up to his last illness. Many clubs owe much to his liberality. Some years ago he built a court for the nurses at the Melbourne Hospital, an act of generosity which was at the time anonymous; and still later he provided funds for fencing and otherwise improving the University tennis courts. His presence as an onlooker at intercolonial matches and as a player in most of the public tournaments will be greatly missed. He was a bachelor, and was one of the most hospitable members of the profession.

We regret to record the death of Dr. W. J. MUNRO, of Macquarie-street, Sydney, which occurred suddenly from cerebral hæmorrhage at his residence at the Glebe on July 24th. He was a son of the late Mr. William Munro, a well-known Sydney architect, and graduated in Arts at the Sydney University in 1880. He then proceeded to Scotland and completed his medical curriculum, graduating M.B., C.M. at Edinburgh University in 1884, and securing at the same time the diploma of M.R.C.S. in London. On his return to Australia he commenced practice at the Glebe, and was for some time in partnership with the late Dr. Ashwell. In 1896 his health gave way; he voyaged to Europe, and spent three years in studying dermatology in London, Paris, Vienna and Berlin. While in Paris, at the Pasteur Institute, he did much original work on the pathology of psoriasis, which gained for him a gold medal on his graduating M.D. at Edinburgh in 1899. Returning to Australia, he practised as a skin specialist in Macquarie-street, and was appointed to the honorary staff of the Prince Alfred Hospital, which position he held at the time of his death. He was also corresponding foreign member of the French Society of Dermatology. He leaves a widow and one son. His funeral took place at Rookwood on July 26th, and was largely attended by members of the profession and representatives of his colleagues on the staff of the Royal Prince Alfred Hospital.

Dr. T. E. Fraser Seabrook, a Broken Hill pioneer, died on August 1st, aged 73 years. Deceased was in practice at Silverton before the discovery of Broken Hill.

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Chorea during Pregnancy.

Shaw (*Jour. of Obst. and Gyn. of Brit. Emp.*, June, 1908) has previously published nine cases, and in this paper gives full details of three further cases, all of which were treated on antitoxæmic lines, making in all 12 consecutive successful cases. It is pointed out that authors have been gradually leading up to the consideration of chorea gravidarum as due entirely to toxæmia, although none have advocated anti-toxæmic treatment. In 1903 Dyce Duckworth wrote a paper in which he considered toxæmia to be one of the basic elements of this disease. French and Hicks, in 1906, considered the neurotic manifestations to be the result of a rheumatic toxæmia, and not due to nervousness of disposition, anxiety, fright or worry. Taylor, in his text-book on medicine, states that chorea gravidarum is primarily due to a toxæmia, for a threefold reason: (1) The frequent occurrence of endocarditis and its almost universal presence in fatal cases; (2) association of acute rheumatism and other infectious diseases; (3) mode of death not explicable by muscular exhaustion. The author further points out that the great peculiarity of chorea is that it only occurs in two periods of life—childhood and pregnancy. In babyhood the higher nervous centres are imperfectly developed, so that the nervous system is in an unstable condition, and makes the infant especially prone to convulsions, which become less common as age advances. The condition of the nervous system becomes more stable as the child grows older, unless it suffers from hereditary instability, ill-health, disease, privation, or other conditions which retard its development and cause the nervous system to retain its infantile type. Such a child may develop chorea, the casual factor often being fright, which would have no permanent effect on a healthy child. During pregnancy, the only other condition in which chorea occurs, the higher controlling centres are probably lowered by the toxæmia of pregnancy, and the nervous system reverts to the condition of infancy. This heightened irritability of the nervous system is manifested by those neurotic conditions which are so common during pregnancy, bad temper, neuralgia, pruritus, amblyopia, peripheral neuritis, etc., and thus a shock or fright which in ordinary health would cause no effect, might now cause serious nervous affections such as chorea.

Case 1.—A primigravida, aged 18, seven months pregnant, was admitted to hospital on November 21st, 1907. Being unmarried, she had had much trouble and worry, as the father of the child, who had promised marriage, had died six months previously. The twitchings had commenced three months before admission; she had been much troubled with sickness, but sleep was unimpaired. As a child she had had chorea. On admission she was a thin, very delicate-looking girl, with choreic movements in every limb; they were sufficiently severe to prevent her from drinking out of a cup, but ceased during sleep. She was kept in bed, the bowels were well and regularly moved with magnesium sulphate and calomel; a simple saline and diaphoretic mixture given, and the diet restricted to malted and peptonised milk on account of the sickness, which occurred frequently during the first four days. After this she was allowed milk foods, as the sickness had ceased and the choreic movements were less. Nine days

after admission all the movements had ceased, and the diet was increased to fish and chicken, being finally put on "ordinary diet," without tea or coffee, on December 10th. From this time she had no choreic movements, her strength increased, and she was delivered of a living female child on January 23rd, 1908, both being discharged in good health on February 2nd, 1908.

Case 2.—A primigravida, aged 21, was admitted to hospital, with the history that the choreic movements suddenly commenced when she was four months pregnant, a fortnight after marriage, but there was no history of previous chorea or rheumatism. She was a pale, delicate-looking girl, 4½ months pregnant, with severe choreic movements affecting her head and all the limbs, but most marked in the arms. After admission, she was kept in bed, calomel and a simple saline and diaphoretic mixture were administered, and the diet restricted to barley water and milk. After the bowels had been well moved on the third day she slept well and the movements were much less. Ten days later, the choreic movements having almost ceased, she developed an attack of pneumonia, which brought on labour, a still-born fetus being delivered 12 hours after a sudden rise of temperature. She finally made a good recovery with no recurrence of the chorea.

Case 3.—A primigravida, aged 23, was admitted to hospital on December 20th, 1907. She had had chorea when 13 years of age, but less severe than the present attack, which commenced two months before admission. She was a well-developed and well-nourished woman, seven months pregnant, with choreiform movements affecting her head and all the limbs. The movements were so severe that one nurse could not keep her in bed, and on three occasions, when left for a few moments with only one nurse, she fell on the floor. She had not slept for three nights previous to admission. She was kept in bed, on milk diet and calomel gr. 1 given four-hourly. After two days of this treatment she was worse, had not slept, the movements were excessively violent, and she had delusions. Her bowels not having been very satisfactorily moved, more calomel and an oil enema, followed by a copious simple enema, were given with good results. Normal saline, a pint every four hours, was administered per rectum. Thyroid extract gr. 5 was given every four hours, and a diuretic and diaphoretic mixture two-hourly. After 24 hours of this treatment the patient fell into a natural sleep, which lasted 16 hours, after which she was so much better that she could drink a cup of milk, holding the cup herself. For the next 24 hours she slept almost constantly, being roused only for food and medicine. The thyroid and rectal saline were withdrawn after 48 hours administration, the choreic movements having almost ceased. From this time she steadily improved, the movements being quite absent in a fortnight, and were very slight after the first week. On February 9th, 1908, she was confined of a healthy male child, both being discharged in good health on the 22nd. Four days after the more vigorous treatment there was a great increase in the amount of urine passed, 66 oz. in 24 hours, as against 20 oz. when first admitted, accompanied by a great increase in the output of urea and uric acid.

The treatment of chorea gravidarum advocated by most writers is to keep the patient in bed, to keep up the strength by nutritious diet, to induce sleep, and to administer arsenic, zinc and salicylates. Opinions on the advisability of terminating the pregnancy seem fairly evenly divided: Duckworth, Hellier and Williamson advocate it, while Walls and Andrews, French and

Hicks oppose it. In a previous paper by the author, the first two of the cases were treated on traditional lines, abortion being finally induced after persevering with the treatment for one week and two weeks respectively; both ended fatally to mother and child. Twelve consecutive cases were successfully treated on anti-toxæmic lines in the following routine manner:—Absolute rest in bed, a purely milk diet, until the movements show signs of improvement, when the diet is very gradually increased, always returning to the milk if there is any increase of the symptoms. Elimination by the skin and kidneys is encouraged by a simple saline diaphoretic and diuretic mixture, and the bowels are kept well opened by calomel and jalap. For most cases this suffices, but in a very severe one (case 3) the saline mixture is given more frequently; the bowels strongly acted on by a large dose of calomel, followed by copious enemata; a pint of normal saline solution administered by rectum every four hours, and thyroid extract, gr. 5, given by mouth four-hourly. One of the strongest proofs that this treatment is based on rational lines is the fact that in none of the 12 cases was a hypnotic required. As soon as elimination is increased, as evidenced by increased output of urea and uric acid, although the diet is restricted to milk, natural sleep occurs, usually on the second or third night. Induction of labour is strongly contraindicated, and was not carried out once in this successful series.

The conclusions which Shaw draws from these cases are:—(1) The chorea of pregnancy is due to a toxin which appears to be identical with, or closely to resemble that of, acute rheumatism. (2) It affects human beings under two circumstances, both of which are characterised by instability or irritability of the nervous system, viz., childhood or pregnancy. (3) The cause of the instability or irritability of the nervous system in pregnancy, bringing it down to the level of childhood is the toxæmia of pregnancy. (4) In the chorea of pregnancy, therefore, it is more important to remove the predisposing cause than to apply merely symptomatic treatment. (5) The treatment must be eliminative as in the other toxæmias of pregnancy. (6) The pregnancy should not be arrested, as this is unnecessary and harmful to the patient as well as to the child.

On Hæmorrhage from Vaginal Varices in Pregnancy.

Grünebaum (*Munchen. Med. Wchnschr.*, No. 52, 1907, abstr. in *Jour. of Obst. and Gyn. of Brit. Emp.*, March, 1908). Attention is drawn to the varying statements of authors as to the occurrence of varices in pregnant women. According to Kehrer they are present in 75 per cent. of all cases of advanced pregnancy, either in the legs, vulva, or as hæmorrhoids; von Winckel's estimate is 34 per cent., Budin's about the same, while Carin puts it as low as five per cent. This great difference must depend upon the different views taken as to what is physiological and what pathological distension of the veins. In the second month of gestation one may see a bluish tinge in the vaginal mucosa, and later on, the dark violet appearance of the vagina, resembling the colour of the lees of wine, is one of the characteristic signs of pregnancy. Vaginal varices are well known as a pathological exaggeration of this condition, and apart from such troubles as sensations of heat and itching, or the occurrence of œdema, hæmorrhage may occur, and may even be fatal owing to the bursting of a dilated vein or its rupture by accidental injury or coitus. Grünebaum reports a case of such hæmorrhage from each of these causes:—1. The wife of an innkeeper, who expected her second confinement in four weeks, retired to her room, and from there summoned the maid to

come to her, as she was bleeding to death. The girl, in terror, without attending to her mistress in any way, rushed to summon the husband, who was at a carnival, and he, on reaching home, found his wife apparently lifeless. He summoned Grünebaum, who, arriving about half an hour after the husband had been first called, found the woman on the floor in a pool of blood, lifeless and cold. As she had been dead some time, Cæsarian section was not attempted. As was proved by autopsy next day, the bleeding came from a ruptured vaginal varix. The uterus contained a fetus of the ninth month; the placenta was quite intact, at the fundus and to the right. The first pregnancy and labour were normal. For the two or three months previously the woman had had itching of the vagina, but had not consulted a doctor. 2. The wife of a gardener, a woman 38 years of age, in the last month of her eighth pregnancy, while unloading potatoes from a waggon, fell upon an upstanding timber of the waggon which ruptured a bunch of varicose veins at the vaginal entrance. Grünebaum found her lying on the ground with all the signs of great blood loss. After the vagina was plugged she was taken to the Lying-in Hospital, where she died two days later. 3. The third case was, fortunately, not fatal. Grünebaum was summoned to the wife of a shopkeeper in the seventh month of her third pregnancy, whom he found in bed, having lost from a quarter to half a litre of blood from the vagina. The patient had tried to stop it by plugging with wool and a towel. On inspection the hæmorrhage had occurred from a small varicose vein at the entrance of the vagina, on the right side. Plugging with iodoform gauze and tying the legs together, stopped the flow. The bleeding recurred on removal of the tampon, but was permanently controlled by transfixion and ligature. The husband confessed that on return from a tavern he had tupped her from behind. The pregnancy continued to term, and after an easy labour the woman had a normal childbed. After quoting several recorded cases—some of hæmorrhage endangering life—during labour, the author, under such circumstances, recommends immediate delivery. This may be accepted, as also the principle of the induction of premature labour in cases of varicose hæmorrhage from the urogenital tract that cannot otherwise be arrested. Practically the induction of labour will seldom affect the case, for the woman's fate will be decided, one way or the other, before it can be effected. But practically vaginal itching in pregnant women should always make one think of varices, and if on examination such be found, induce one to take precautionary measures.

OPHTHALMOLOGY.

Very great interest has been recently and somewhat suddenly taken in the association of ocular and orbital disease, with affections of the accessory sinuses. A remarkable sign of this interest is shown by the fact that in the *Ophthalmoscope* for April last there are no less than six original communications (one translation) and short reviews of 36 recent British, American and Continental papers on this subject.

To make anything like a satisfactory abstract of the papers, some of which are very full and lengthy, would be quite impossible in the space at our disposal, but the importance and interest of the subject, together with the fact that the text-books give no indication that sinusitis is a frequent (possibly the most frequent) cause of inflammatory affections of the orbit, or even, as has been shown, of optic neuritis. In many text-books nasal suppuration is not even referred to as a cause of orbital cellulitis, though, as St. Clair Thomson points out, it is probably a much more frequent cause than are the generally accepted causes (syphilis, rheu-

matism and scrofula) all put together, and a failure to recognise this fact may have disastrous results.

St. Clair Thomson gives particulars of several cases in which disease of the maxillary, frontal, ethmoidal or sphenoidal sinuses caused the complication in the orbit without there being at first any evidence that the sinus disease was the cause. The following may be given as an example. A female, aged 18, came with an abscess pointing at inner canthus of left eye. The abscess was opened and a large quantity of pus evacuated which appeared to come from a deep situation in the inner wall of the orbit. Bare bone was felt on probing. A fistulous, pus-discharging opening remained some weeks later. This case would until quite recently have been regarded as a case of orbital cellulitis leading to necrosis, whereas the evolution was entirely in the opposite direction. Transillumination, exploratory puncture, and other intra-nasal investigations proved the presence of pus in the frontal, ethmoidal and maxillary cavities of the left side. With intra-nasal treatment, and without further surgical interference, a complete cure was effected. Thrombosis of the cavernous sinus, with its consequent disastrous effect on the eye, is frequently the result of a disease in an accessory sinus, and St. Clair Thomson believes that the majority of cases of this very fatal disease can be traced to pus in the sinuses. St. Clair Thomson also contributed a paper to the Medical Society of London (Vol. xxix, 1906) on the same subject, and also read a paper on it before the International Medical Congress in Lisbon. The latter paper was published in the *Practitioner* (July, 1906), and records three remarkable cases of fronto-ethmoidal sinusitis in which spontaneous evacuation took place into the orbit instead of into the nose.

Jameson Evans' contribution also gives numerous cases in which each of the accessory sinuses was responsible for orbital disease, and also cases in which the field of vision has been affected rather by a central scotoma or more commonly by a defect in one or both fields in the temporal or nasal sides, and which he attributes to a retrobulbar neuritis due to sinus disease.

Fish publishes and comments in a tabulated record of 36 consecutive cases of optic neuritis in which nasal accessory sinus disease was present 26 times. Treatment of the sinuses was followed by improvement of the ocular condition in 15 cases, including three bilateral cases restored to normal. Such an etiological proportion is remarkable, and if found to be not exceptional will make us entirely revise generally accepted opinions. Fish also refers to other cases in the literature of optic neuritis and hæmorrhagic retinitis in which eyes sometimes nearly, sometimes quite, blind were restored to normal vision by treatment of the sinus disease. He says that a purulent nasal discharge—a symptom expected to be found in every case—is frequently absent; in fact, it is exceptional in the cases reported) and that the failure to find this classical symptom has led only too often to an exclusion of sinusitis. An involvement of the external ocular muscles is by no means rare. It was present in 33 per cent. of the cases. Three of the operations reported were cases of glaucoma—two primary and one secondary. In each instance the affection of the sinuses was clearly present, and the causal relationship was shown by the improvement in the ocular condition following the drainage of the cavities. He refers to many other recorded cases of glaucoma due to sinus empyema, in which improvement followed treatment of the sinus after they had failed to yield to an iridectomy. He points out that it is in acute glaucoma that an iridectomy relieves, whereas in the majority of the chronic cases it fails. Assuming that sinus disease is

a common cause of glaucoma, he suggests that as the acute cases of sinusitis are usually self-limited, the iridectomy relieves the tension, and so carries the eye over the dangerous period, the sinus affection healing spontaneously in the meantime. But in chronic sinus disease, with its ever recurrent exacerbations, iridectomy often fails and the eye goes on to gradual loss of function. Fish concludes by emphasising one thing, viz., that an absolute negative nasal finding does not exclude accessory sinus disease, and after a careful consideration of the subject he is convinced that sinus disease is one of the most frequent causes of optic neuritis, and that the proper treatment of the sinuses would prevent the unfavourable termination that now occurs only too often. Sinus disease can cause a bilateral optic neuritis with dizziness, pain and vomiting, symptoms that have frequently led to the diagnosis of cerebral tumour, and yet at the autopsy no tumour has been found.

Sydney Stephenson records three cases of malignant disease of the accessory sinuses. The first was one of malignant growth from the ethmoid sphenoid (?) in a child of 10 years; early blindness with no fundus changes to account for it; moderate proptosis; extension to glands of neck; death from exhaustion. Case No. 2 was endothelioma of ethmoidal-sphenoidal sinus; proptosis; pain and defective sight; no fundus changes; Krönheim's operation; recurrence; blindness of the other eye; death. Case No. 3 was one of epithelioma of the antrum of Highmore, with twitting in the orbit displacing the eye upward. In all three cases the outstanding symptoms of sinus mischief were of an ocular character, so that help was sought in the first instance from the ophthalmic surgeon.

Howell Evans supplies a paper illustrated with diagrams on the Applied Topographical Anatomy of the Sinuses Accessory to the Nasal Cavities in relation to the Orbit and to its most important contents, and emphasises the paramount importance to the surgeon, rhinologist and ophthalmologist of a thorough knowledge of these anatomical points.

Teillais, of Nantes, has a paper (translated) on a case of empyema of the maxillary antrum followed by orbital cellulitis and atrophy of the optic nerve of the same side, and sympathetic ophthalmitis. The sinusitis followed on the extraction of a molar tooth.

An abstract of a paper by Laas is published on Blindness following Operations on the Nose. There were two cases of contra-lateral disturbance of sight after operation on spurs of the nasal septum, one being complicated by blindness on the side of the operation and accompanied by meningeal symptoms.

Bartels discusses the anatomical basis of blindness following orbital abscess, based on a case which had been operated on for left-sided sinus thrombosis, following middle-ear disease.

Amongst the other papers, of which abstracts only are given, are:—

1. Johnston, R. H.—Exophthalmos caused by ethmoidal and frontal sinus disease; drainage; recovery.

2. Hoffman, R.—On inflammatory affections of the orbit and of the eye in connection with suppuration of the nasal sinuses, with report of author's own cases.

3. Green, John, junior.—Ocular signs and complications of accessory sinus disease. He refers to the ocular signs of sinus trouble which might lead one unskilled in rhinoscopic examination to suspect the existence of sinus disease:—(1) *Orbit*. A majority of the inflammations of the orbit originate from a sinusitis. The particular sinus involved may sometimes be determined by the direction in which the globe is displaced. Variations in the degree of the exophthalmos are rather characteristic of sinusitis. (2) *Optic Nerve*: *Espe*

cially liable to be implicated in sphenoiditis and posterior ethmoiditis. (3) Extra-ocular Muscles: Complete paralysis of all the muscles may in rare instances be traced to an apical cellulitis of sphenoidal or ethmoidal origin. Of greater frequency is the partial paralysis of one muscle or of a group of muscles. Such pauses may occur in both suppurative and catarrhal conditions of the accessory sinuses. (4) *Lachrymal Apparatus*. An empyema of one of the sinuses may empty into the lachrymal sac. More frequently the pus finds its way into the tissues which surround the sac, giving rise to the so-called "prelachrymal abscess." (5) *Eyelids*. Edema of lids, most marked in the morning, and on bending forward is often associated with sinus disease. The edema is often unilateral and is apt to be compared to the nasal half of upper lid. (6) *Cornea*. Hesper-like blisters on the cornea due to implication of the 5th nerve as it passes along the outer wall of the sphenoidal sinus.

As regards the other point, viz., the ocular signs that would lead one to suspect affection of the sinuses, Green lays stress on the marked variation in headache, lachrymatous photophobia, and so forth, that may occur from day to day. The headache is distinguished by the fact that it occurs in the morning, whilst its location may signify the sinus involved. A valuable sign of frontal and ethmoidal mischief is pain evoked on pressure against the upper inner wall of the orbit. In many cases of sinus disease the diagnosis presents many difficulties even to the skilled rhinologist, and often more reliance can be placed on a certain clinical association of symptoms than on the rhinoscopic findings.

4. Knapp Arnold.—Sudden blindness following suppurative conditions about the eyeball.

5. Wood, Casey.—On some ocular symptoms common to or produced by affections of the nose and accessory cavities. Such are headache, vertigo, lachrymation, oedema of the lids, orthoepia, and oculo-motor paralysis.

6. Birch, Herschfield A.—Contribution to the knowledge of affections of the optic nerve in connection with affection of the posterior sinuses of the nose. He gives the primary impairment of vision as constantly a relative central scotoma with intact outlines of fields differing from toxic neuritis in being unilateral (generally), and the relatively acute onset and progress, the relative scotoma becoming absolute, and the field eventually contracted.

No less than 30 other papers are reviewed in the number of the *Ophthalmoscope* referred to, all with similar titles and similar records, but want of space forbids mentioning even the titles. Sufficient has been said to direct attention to the necessity for considering the influence of the accessory sinuses in ocular and orbital disease, and to the growing interest of ophthalmologists in this connection.

NEUROLOGY.

Upper-ending of Gower's Tract.

An epitome of this paper by Blumenau is given in *Neurol. Centralblatt*, March, 1908. He mentions that Van Gehuchten's and Lewandowsky's experiments led to the conclusion that practically the whole of the fibres ended in the cerebellum. Blumenau examined a case in which damage had occurred to the tract in compression myelitis. He found that one-fifth of the bundle ascended to the thalamus (fibræ spino-thalamice), and more than a fifth ended in the posterior corpus quadrigeminum. He found a constant stream of fibres into the corpus restiforme. Many fibres leave the bundle in the pons, but most of these turn again and join the corpus restiforme; a few, however, reach

the cerebellum by way of the middle peduncle. Further, a considerable portion of the tract bends round the superior cerebellar peduncle at the level of the upper end of the motor nucleus of the fifth cranial nerve, and ends in conjunction with the inferior peduncle in the vermis. In the superior peduncle itself Blumenau found no degenerated fibres—a fact in agreement with the observations of Rossolimo and Dydyński. The remainder of the fibres of Gower's tract form a portion of the lateral fillet. Some of these fibres cross over in the superior medullary velum and then go to the opposite posterior corpus quadrigeminum. This decussation is carried on some distance higher up, viz., over the aqueduct, and appear to be continued under the internal corpus geniculatum to the thalamus as far forward as the nucleus of Luys.

Serum Diagnosis in Syphilis.

Plaut (*Centralblatt für Nervenheilk. u. Psy.*, April, 1908) discusses the clinical application and various modifications of the method as described first by Wassermann and Plaut (*Deut. Med. Woch. Jahrg. 32*, No. 44). The method is based on the phenomenon of deviation of complement. If the blood of a sheep be injected into a rabbit, the blood of the latter acquires the property of dissolving the red blood cells of the sheep if the two be mixed in a glass. This acquired power of the rabbit's blood depends upon two substances which are now found in the rabbit's blood, viz., *immune body* and *complement*. The complement can be destroyed by heating to 55°C., and this robs the rabbit's blood of its destructive power against sheep's blood. The power is regained if a little blood or serum of any other animal be now added to the heated serum. The added serum has brought in a fresh supply of complement which is a normal constituent of all blood. In the second place toxin and antitoxin only unite in the presence of complement, and in the process the complement is used up. Bearing these facts in mind, the serum tests for syphilis (and the same holds for other diseases) is as follows:—A little watery extract from an organ of a dead syphilitic child or foetus is taken and labelled (1). This represents the syphilitic toxin. A little serum from a suspected case of syphilis is taken and labelled (2). If the patient is syphilitic this serum should contain a small amount of syphilitic antitoxin. A small amount of guinea-pig's serum is taken and labelled (3). This contains complement. Some heated serum of a rabbit which has previously been injected with sheep's blood is taken and labelled (4). This contains immune body. Some sheep's blood corpuscles are taken and labelled (5). From what has been said above if (3), (4) and (5) be mixed together (5) will be dissolved. If, however, before doing this we mix (2) and (3) together and let them stand for some time and then add (4) and (5) to this mixture there may be no destruction of (5). If no destruction of (5) occurs, then the patient which yielded (2) has syphilis. The reason is this: If (2) contained no anti-syphilitic toxin there would have been no body to interact with (1) and so bind (3). In that case (3) would still be available to combine (4) and (5), and solution of (5) would have taken place. The presence of a syphilitic antitoxin indicates previous infection by the syphilitic toxin.

Plaut has used the above method and finds that in the hands of experts it gives good results. In agreement with Neisser, Bruck and Schuchert he finds that a very high percentage of cases of general paralysis of the insane give a positive reaction with the cerebro-spinal fluid. The method is no doubt a great addition to our means of proof of the close connection between general paralysis and syphilis.

MEDICAL MISCELLANY.

THE plague situation in Venezuela is believed to be growing more serious, though, owing to the policy of secrecy and denial adopted by the Government of that country, it is impossible to obtain any definite information. On this account the port of New York has declared quarantine against all vessels from Venezuela. The disease is spreading from La Guayra to the other coast towns, several cases having occurred in Puerto Cabello.

The City Health Department is gaining its fight against pneumonia in Chicago. During the first four months of 1908 the number of deaths was 712 less than in the same period of 1907, and of this saving 413 was in pneumonia. Much the largest factor in this decrease of deaths from pneumonia has been better ventilation, especially in homes.

Dr. Max Wolper, of New York city, having been telephoned for to see a child "who was being strangled by an ulcer in the throat," jumped into his automobile and, picking up a colleague on the way, hastened to the patient's house. They were arrested by a traffic squad policeman for overspeeding. In a few words the situation was explained, and the policeman, instead of arresting the physicians, not only permitted them to proceed, but also trailed them to see that no other officer stopped them on their merciful errand.

President Roosevelt has suggested to Congress the appropriation of \$20,000 for the salaries and expenses of three commissioners and a secretary, who shall for this Government inquire into the opium evil. A letter from Secretary Root, accompanying the President's note, suggests that each country which has signified to the United States its willingness to make such an investigation, appoint commissioners who shall make inquiries in their own countries. He further proposes that all these commissioners meet at Shanghai, China, on January 1st, 1909. This assemblage will then decide what shall be done to eradicate the opium evil.

The tenth annual meeting of the National Medical Association of Negro Physicians, Dentists, and Pharmacists will be held in New York on August 25th, 26th, and 27th, 1908, under the presidency of Dr. P. A. Johnson, of New York. The annual attendance at the three previous meetings, in Richmond, Philadelphia, and Baltimore respectively, has averaged about 300, but it is anticipated that there will be 500 at least at the forthcoming meeting. It is gratifying to learn that if all of the most prominent of the coloured members of the profession are identified with this organisation, the good which can be accomplished by such a body is unquestionable. The salvation of the Negroes in this country from terrible havoc made in their ranks by disease must in the end be accomplished by physicians of their own race, and organisation will be a powerful weapon to aid them in this struggle.

Hochenegg, of Vienna, is declared to have operated successfully in a case of acromegaly. The case was that of a young girl who presented the usual symptoms; the diagnosis is said to have been confirmed by means of X-rays. The nose was moved to one side, the cranial floor was entered and the tumour removed from the hypophysis. The difficulty of reaching the lesion has thus far precluded operation.

Milan has inaugurated a clinic for the study and treatment of professional or occupation

affections and diseases. Professor Q. Devoto, professor of medical pathology at Pavia, has been transferred to the new clinic and chair for the pathology of industry, and G. Pieraccini has recently qualified at Florence for the post of "private docent" in this branch of medicine.

The large sick benefit societies at Cologne, Germany, have been recently repudiating their agreements with their medical officers, and now insist on conditions which the organised profession is unwilling to accept. Backed by the Society for Promoting the Material Interests of Profession (Leipzig, Verband) and the good wishes of the profession, the medical officers have resigned, and now face a bitter struggle, the most important that has been waged since this society was first started a few years ago. Local medical societies throughout the country are passing resolutions endorsing their action and expressing sympathy.

The approaching 350th anniversary of the Jena University will witness the dedication of the new university buildings erected by public and private subscriptions, including a gift from the Carl Zeiss microscope works. The "nature healers" have petitioned to have a chair organised at the University for "nature healing," that is, for their system of dietetic and physical therapy. The petition had 2000 signatures, including the sick benefit societies, whose officers gave as their reason for endorsing the petition that this method is "cheaper than regular medicine" for their policy healers. The committee to whom the petition was referred in the legislature invited the members of the legislature to visit the medical clinic at Jena, and showed them there the innumerable scientific appliances and arrangements for physical and dietetic measures. The petition was tabled.

The Société Française d'Ophthalmologie celebrated on May 3rd the twenty-fifth anniversary of its foundation, and reviewed its history. Hiss, of Würzburg, brought greetings from the German sister society, on which the French society was modelled; Berry, from the Great Britain society; van Duyse, from Holland; Verderaw, from Spain and Spanish America; Angelucci, from Italy; Briend, from Egypt; and Beauvois, from Mexico. A number of delegates from societies representing other specialities were also present. The festivities continued with a reception at the Saint-Germain museum, where A. Ferson delivered an address on the instruments used by the oculists of Gaul and Ancient Rome. A banquet followed, and a souvenir medal was presented to each member. The twenty-fifth annual congress opened the next day, the main topic for discussion being "Treatment of Wounds of the Eyes." More than 60 communications were presented, including one on the value of pyocyanase in ophthalmology.

There was recently held on the grounds of the Perkins Institution for the Blind in Jamaica Plain an athletic event in which the contestants were blind. Coincidentally with this contest others were held in the various States at schools for the blind, and the final results were sent to Columbus, Ohio, where the award of prizes was made. Sixteen teams were entered, and it is said that by simple devices for certain of the events in which eyesight would seem to be absolutely essential, creditable records were made. The affair under the direction of the National Association for the Blind was the first of its sort held in this country.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Association for the Feeble-minded—Domestic Science—Increasing Pauperism—The Registrar-General's Returns for 1907—Royal Society's Conversazione—A Bureau for Information Regarding Sleeping Sickness.

THE National Association for the Feeble-minded is at present engaged in an endeavour to establish a farm colony where mentally defective persons can be provided with suitable occupation. In America similar institutions have been founded and have been carried on with conspicuous success. The annual meeting of the Association was held on May 8th at 24 Park-lane, when the whole question was thoroughly discussed. The report of the year's working illustrates the vast amount of good done through the agency of the society, to whom 662 applications were made during the 12 months for admission to their homes. Mr. Anthony Hope Hawkins commended the objects of the organisation, and expressed the hope that both by public and private means the work would go on and be crowned with continual success. Sir Clifford Allbutt suggested a distinction between the care of what he called "borderland" cases and those where boys or girls could be regarded definitely as defective children. He considered that with regard to the former the State should not interfere. He believed that to attain thorough success in movements of this kind a Ministry of Health should be added to the other departments of the State. Mr. Dickinson, M.P., gave an account of some American institutions he had visited, and said the Americans, though they had begun later, were ahead of us in this matter. The proposed farm colony would require an expenditure of several thousand pounds, and he appealed to the charitable public to help on the work.

The annual conference of the Association of Teachers of Domestic Science was held at the Finsbury Town Hall on May 9th. Lady Ricker, who occupied the chair, said that the country was waking up in all directions to the importance of domestic science. It was one of the most far-reaching results of the Victorian era of scientific discovery that there was need for scientific training in every curriculum. In too many homes it was still true that the woman's privilege of inaccuracy and carelessness was accepted. Why should our rate of infantile mortality be still nearly double that of Norway? It was due to an amount of ignorance which was a blot upon 50 years' higher educational work among women. But those 50 years, in the face of strenuous opposition and misrepresentation, were necessary. Women had had to win the right to be educated at all, and they had had to prove they were worthy of as good an education as men. Now they had to go a step further, and show that the highest education could only be attained by the women who carried research into those fields of activity which must ever be women's work in the world. They must get rid of the horrible idea that household duties could be left to the family duffer, and show instead that the best brains of the country were needed for the work. True, the work had been despised, very largely because it had been badly done. And their great aim must be to get University recognition of a course of household economics. An ideal course would give the complete science of the efficient management of a house in all its branches. The whole subject would be covered from

the purchase of a site to the bacteria of the larder, the chemistry of the kitchen and of the washtub, the economic principles underlying its ruling, the psychology and ethics of its moral government, and the culture which would help to enlarge the minds of those who lived in the home. A paper was read by Dr. Thomas, assistant medical officer to the London County Council, on Clerical Work v. Handwork "as a means of mental development"; and on the same subject, "as a means of earning a livelihood," Miss Annie C. Glover, head mistress of the Higher Elementary School, Clapham, pointed out that housecraft, though really skilled work, had fallen into very serious disrepute. Girls who were bookishly clever were presumed to be above housework, instead of incapable of doing it. Any girl who showed herself capable of passing easily in the top class at an ordinary elementary school was supposed to be too clever for any but a clerical life. Who, she asked, would be the pioneer of the band of thoroughly trained, attractively uniformed, peripatetic household helps who, with their neat and portable cases of the latest domestic appliances, would step in to do specified work, either by the day, job, or week? At present charring was the last resource of the untrained, unsuccessful, middle-aged and old; and the work was unorganised and unskilled. Several other papers of interest were read on kindred subjects by delegates from various parts of the country.

A Local Government Board return on pauperism in England and Wales was issued on May 12th, from which it appears that the increase in the number of paupers to whom relief was afforded during the first quarter of the current year was in excess of that recorded in the last quarter of 1907. At the end of January there were 823,843 persons on the relief list. Comparison of the figures for the first quarter of 1908 with those for the corresponding period of 1907 shows that a sharp increase in pauperism occurred at the beginning of the year, which continued throughout the quarter. The aggregate numbers relieved at the end of January and February, 1908, showed an increase on the numbers relieved in 1907 of 1·7 and 1·6 per cent. respectively, and at the end of March the number was 2·8 per cent. more than in March, 1907. The rate of pauperism in relation to the population also increased, standing at 23·1 per 1000 at the end of March, 1908, as compared with 22·7 on the corresponding day in 1907. Indoor pauperism throughout the quarter was higher than in any previous year. The rate per 1000 of this class of pauper at the end of March, 1908, was 7·7, as compared with 7·4 on the corresponding day in 1907. In London the aggregate numbers in receipt of relief at the end of each week of the first quarter of 1908 showed a substantial increase as compared with the previous year. About one-half of the aggregate increase was in the indoor relief class, the number of indoor paupers being higher at the end of March than those recorded for any previous year. The figures relating to casual pauperism show a gradual rise throughout the quarter, the highest point being reached on March 28th, when the number of this class of pauper amounted to 12,038, as compared with 10,287 on the corresponding day in 1907.

The Registrar-General's report for the year 1907 was issued on May 11th. Births and deaths during the year are the lowest on record. The estimated population on which the returns are based for England and Wales is 34,945,600, of whom 16,879,509 were males and 18,066,091 were females. The births for the whole country numbered 917,636, or 26·3 per 1000; this rate was 0·8 per 1000 below the rate of 1906, and lower than the rate in any

other year on record. Compared with the average in the ten years 1897-1906 the birth-rate showed a decrease of 2.1 per 1000. The total births in London were in the proportion of 25.8 per 1000 for the year; this is the lowest rate recorded in the metropolis since civil registration was established. In 1867 the birth-rate in London attained the highest point on record—36.5 per 1000 living. Calculated on the total population, the fall in the birth-rate in London during the past 37 years amounted to 27 per cent. The birth-rate in the case of married women shows a decrease amounting to 25 per cent. in the last 37 years. It is noticeable that nearly all the great cities of Europe show the same decline, that of Paris and The Hague being 27 per cent., Stockholm 28 per cent., Turin 29 per cent., Berlin 30 per cent., and Brussels 36 per cent. The marriages for the whole country numbered 276,088, corresponding to a rate of 15.8 persons married per 1000 of the population. This rate was 0.2 per 1000 above the corresponding rate in 1906, and was equal to the average rate in the ten years, 1897-1906. The marriages in London for the year numbered 40,541, or 17.0 per 1000, being 0.1 per 1000 below the preceding year, and 0.8 per 1000 below the average rate for the preceding ten years. In the year 1894 the marriage rate was 17.0; from that date it gradually rose to 18.8 in the year 1898, since which year it has declined almost continuously to its present level. During the past 37 years the marriage rate, based on total population, has, with fluctuations, declined by about 12 per cent., while based on the total number of married persons the decline is 21 per cent. The deaths numbered 524,311, or 15.0 per 1000; 0.4 per 1000 below the rate for the previous year, and lower than the rate in any other year on record; compared with the average for the preceding ten years, 1907 showed a decrease of 1.7 per 1000. Infantile mortality was 118 per 1000, which was 14 per 1000 below the rate for the previous year, and below the rate in any other year on record, a fact mainly due to the cool weather experienced in the past summer. Of the 524,311 deaths registered during 1907, 108,214 were those of infants under one year; 236,646 those of persons between one and sixty years, and 179,451 those of persons aged sixty years and upwards. The number of deaths resulting from epidemic diseases was 0.68 per 1000 below the mean proportion in the ten preceding years. Deaths attributed to violence were 0.56 per 1000, or 0.05 per 1000 below the average for the preceding ten years. The number of deaths in London was 0.5 below that recorded in 1906, and was the lowest since the establishment of civil registration. The Registrar-General draws attention to the fact that the towns with high rates of infantile mortality are mainly situated in districts devoted to the mining, textile, and pottery industries. It cannot be doubted, he says, that the high rates of infantile mortality prevailing there denote conditions of life which have an injurious effect on the physical well-being of the survivors. As in 1906, not a single death from smallpox was recorded in London last year. There has also been a substantial fall in the death-rate from consumption, but a steady increase in the last three years in that from influenza.

The conversazioni of the Royal Society was held at Burlington House on May 13th. Lord Raleigh welcomed a large company of distinguished persons. The exhibits were, on the whole, interesting, and, as usual, varied. Professor Bottomley exhibited some examples of the effect of the artificial treatment by bacteria of the roots of plants, even when the plants were of the non-leguminous kind; and Mr. Francis For and the engineers who are engaged in supporting the falling

structure of Winchester Cathedral, had assembled specimens of the beach logs, which the builders laid at the foundations more than 700 years ago, as well as some of the oak piles which the Normans drove into the marshy ground in 1079, thirteen years after the Conquest. Mr. Franklin-Adam*, F.R.A.S., showed a remarkable machine for counting stars on stellar plates. The Franklin-Adams chart is made up of plates 15 in. square; the stars upon it number 23,000,000, and this machine, by Messrs Troughton and Simms, counts them as no enumerator could possibly do. Among a large number of novelties in physics may be mentioned Dr. J. A. Fleming's latest improvement in the detection of the etheric waves used in wireless telegraphy. His new receivers have already been used in Transatlantic messages. Professor J. Milne exhibited a seismograph of the Mexican earthquake of March 26th, 1908, taken in the Isle of Wight, and Sir W. Crookes had on view specimens of that rare element, scandium—scarce on earth, but apparently abundant in the sun and some of the brighter stars. Among the more curious exhibits were a number of dead grouse, which demonstrated the causes and progress of grouse disease as worked out by the Commission appointed to investigate this subject; a most masterly series of charts and diagrams contributed by the Imperial Cancer Research Fund, which showed, in a very striking way, the progress of the inquiry and some of the results reached; and Mr. Henry Balfour's collection of stone implements from the Zambesi. Mr. Cowper Coles sent two fine parabolic mirrors, which have been silvered by electric deposition without polishing of any kind; and Messrs. Gordon and Fletcher Moulton exhibited a new arrangement for high-power microscopes.

The Colonial Office announces that at the instance of the late Secretary of State for the Colonies, and with the co-operation of the Government of the Soudan and the Royal Society, his Majesty's Government have decided to establish in London a bureau for the collection and general distribution of information with regard to sleeping sickness. The Royal Society will find accommodation for the bureau at Burlington House, and one-fourth of the cost of upkeep will be borne by the Soudan Government. The bureau will be under the general control and direction of an honorary committee of management, appointed by and responsible to the Secretary of State for the Colonies. The committee will be composed of the following:—Chairman, the Right Honourable Sir West Ridgeway, G.C.B., G.C.M.G., K.C.S.I., who is also chairman of the Advisory committee of the Tropical Diseases Research Fund; Sir Patrick Manson, M.D., K.C.M.G., F.R.S., Sir Rubert Boyce, F.R.S., Dr. Rose Bradford, F.R.S. (representing the Royal Society), Colonel Sir David Bruce, C.B., F.R.S., Mr. E. A. Walrond Clarke (representing the Foreign Office), and Mr. H. J. Read, C.M.G. (representing the Colonial Office), with Mr. R. Popham Lobb, of the Colonial Office, as secretary. The main function of the bureau, which will be administered by a paid director, will be to collect from all sources information regarding sleeping sickness; to collate, condense, and, where necessary, translate this information; and to distribute it as widely and quickly as possible among those who are engaged in combating the disease. The publications of the bureau will be divided into two categories, viz., scientific publications intended for those who are engaged in research work or in carrying out medical administration in the infected districts, and publications of a less technical character for the use of Government officials, missionaries, and others whose duties involve residence in those districts. One im-

portant piece of work will be the preparation of a map of the whole of tropical Africa, showing the distribution of the disease and of the different species of blood-sucking insects which are suspected of conveying it. A map of this kind showing, as it would, the extent to which the distribution of the disease coincides with the distribution of the different species of insects is expected to supply valuable information to scientific investigators, and to give guidance to the different administrations by indicating the lines of advance of the disease and the districts which require special protective measures. The duties of the director of the bureau will for the present be undertaken by Dr. A. G. Bagshawe, of the Uganda Medical Staff, who has been seconded from the Protectorate Service for the purpose.

South Australia.

The Food and Drugs Bill—Electric Trains—The Children's Hospital—The Medical Library.

THE local legislature is again in session. With the exception of the Food and Drugs Bill, which is a comprehensive measure, and which is expected to become law, the Governor's speech contained no matters of medical interest.

At last a start has been made with the construction of the permanent way of the electric tramway system. Hitherto every medical man has had to keep a carriage or a motor car, as the old horse trams were so slow. It is possible that the electric cars will diminish the expenses of practice.

The Children's Hospital improvements are now completed. The new laundry has been opened and is much appreciated. The motive power is provided by electricity, and the machines for the different processes are the best that can be bought.

The Council of the Branch of the B.M.A. have submitted to the University Council a scheme for the subsidising of the University Medical Library. It is proposed to guarantee a subsidy of at least £50 a year for ten years. This amount is to be spent in the purchase of medical books and periodicals. To provide this sum the subscription of members of the South Australian Branch of the B.M.A. residing within a 12 miles radius of the G.P.O. is to be raised from two guineas to £3. Country members have the option of becoming library subscribers. Should they elect to do so their subscription is to be raised to £2 10s. In return for this subsidy the University Council must house the medical library in a separate section of the present library, and as soon as possible in a separate room which shall be open to all medical men and undergraduates. Every subscriber may borrow two books and two periodicals—the former for a week, the latter for a fortnight. This scheme is to be brought before a general meeting of the Branch at an early date, when it is hoped that it will secure the support of members. Certain it is that they are not likely to have again such a chance of securing the use of a good medical library for such a moderate subscription.

EXPERT MEDICAL EVIDENCE.

(To the Editor of the Australasian Medical Gazette.)

Sir,—In last month's *A.M.G.* an editorial appears on "Expert Medical Evidence," with which, in the main, I am in cordial agreement. But I take exception to some of the statements having reference to the Maitland case. "No impartial person on reading this case could, we think, come to any other opinion than that the result was extremely unsatisfactory, and this result, we think,

is mainly due to the defect in the expert medical evidence." May I be allowed to say that there was no shadow of conflict as to the accused's *legal* sanity, although there was a mass of evidence pointing to his being weak-minded and incapable. These being facts, the jury had "reliable, unbiassed medical expert opinion to guide them to a correct verdict." No medical evidence of insanity was adduced, but surely on common sense grounds the plea for mercy was a reasonable one for the jury to add in the light of a remarkable history of weak-mindedness and incapacity.—I am, etc.,

CHISHOLM ROSS.

Sydney, August 12th, 1908.

THE PRESCRIBING OF MORPHIA.

WE have been handed the following letter for publication by the Hon. Secretary of the N.S.W. Branch of the British Medical Association:—

The Secretary,
British Medical Association,
121 Bathurst Street, Sydney.

Dear Sir,—I beg to bring under your notice the following case, of which I have seen documentary evidence from the chemist and from the medical practitioner, as well as the original order.

A customer asked for a supply of morphia in solution or tabloids. He was a well-groomed man—a stranger. He produced a letter, of which the subjoined is a copy. In appearance it was soiled, as if it had been well used, but it bore no mark of any pharmacist having taken it as a prescription, although the customer said that he had no difficulty in getting a supply whenever he produced it. This was in the month of June. The letter was dated, with the name of a place, April 21st, 1908:—

"To Dispensing Chemists.—The bearer will require to use a certain amount of morphia for some time, and he will therefore have to purchase it from chemists wherever he may chance to be. This is to exonerate such chemists and to authorise his purchasing morphia either in solution or tabloids." Signed with the name of the practitioner, M.B., M.R.C.S.

We communicated with the practitioner, who at first thought the order must be a forgery, as on the date given he was not living at the address. Further correspondence has brought out the admission that the holder of the letter might have been a previous patient and have sent to him a letter for his signature after his removal to a new address, and that he may have signed it without noticing either the date or the address. He adds: "I think a chemist at this lapse of time would use his own judgment as to whether he would supply the morphia or not without a further prescription or a certificate of later date."

The document has been used more than once. Recently (dates can be given) a messenger was sent with a document asking for a supply of morphia, which was handed to the messenger. Two days later a letter came back saying that the bottle had been broken in the post, and asking for a further supply of morphia, or, if that was not available, morphia and atropine. The fact must be emphasised that the morphia had not been sent through the post, but given to the messenger.

We should be glad if the Association would pronounce an opinion on the form of the document herein given. We have pointed out to the practitioner that his suggestion that the pharmacist should use his own discretion is putting the latter in a very difficult position. If the medical practitioner had intended that the supply of morphia should continue indefinitely and

the chemist, acting on his own discretion, refused to supply, the practitioner would have great reason to be offended, and the patient, especially if the morphia mania had developed, would be exceedingly indignant. Even if the chemist used his own discretion and refused the morphi-maniac, intense annoyance and hostility would be certain to be developed, leading to the loss of the custom of the patient and in all probability of that of his family and friends. Speaking on behalf of pharmacists, we strongly urge that the attention of medical practitioners should be drawn to this matter and that all should be urged to limit their prescriptions for morphia to a definite period.

I shall esteem it a favour if you will bring this matter before your Association and let me know the opinion expressed.—Believe me, yours truly,

THE EDITOR

The Chemist and Druggist of Australia.

The Recent Inquest on David Lacey.

By C. V. WELLS, M.B. (Adel.), Medical Superintendent
Adelaide Hospital.

ABOUT 18 years ago, whilst playing, patient put a piece of phosphorus in his trousers pocket, which ignited and severely burnt him. He was treated in the Burra Hospital, and it was almost two years before the wound healed. On December 14th, 1907, whilst working on the British Mine at Broken Hill a piece of ore fell from a passing truck, hitting him upon the site of the old injury. It caused a scratch upon the devitalised area. His wife described the injury as a "small crack or break in the flesh." No doctor was called to the mine, and the patient walked home with the aid of a broom, and at first did not think much of the injury. He walked about the house and occasionally a little way along the street. After a time, however, it began to extend rapidly, so that on January 10th it became necessary for the patient to enter the Broken Hill Hospital. During the five months that he remained there skin grafting was twice attempted, but failed, and X-ray treatment was also tried. Two months before leaving an incision about two inches long was made in the upper and inner part of the thigh, and a large quantity of pus was evacuated. His surgeon, after consultation, advised amputation, but patient refused to allow it. Becoming dissatisfied, he came to the Adelaide Hospital on June 10th, 1908. On admission his temperature was 102°, pulse 132, and his urine contained albumen. On the outer side of the right leg was an ulcer extending from a little above the hip and downwards for about two-thirds the length of the thigh. The total area was about one square foot. For two or three inches above the ulcer there was scar tissue, with some contraction of the skin, whilst below the scar tissue also extended for about two inches below the margin of the ulcer. Just external to origin of adductors was an opening about the size of a half-crown, and there was a cavity extending upwards and also outwards and backwards, the walls of which appeared very sloughy.

Dr. Giles saw the patient soon after admission, and at his wish the man was transferred to the septic ward. The next morning I saw Dr. Giles, who said that on account of the patient's condition he considered amputation altogether out of the question, but he thought that the ulcer should be scraped. Throughout the day patient's temperature was 103°. He also coughed up some offensive expectoration. There was some dullness at the left apex and also some rhonchi over chest.

The next morning under ether the ulcer was scraped and swabbed with pure iodo. Several sloughs were taken from the cavity, and a counter-opening was made on to the abdominal wall. The femoral vessels were found to be exposed.

During the next four days the temperature did not get above 101°, and the ulcer was comparatively clean. The patient coughed up a good deal of offensive pus, however, so that abscess of the lung was diagnosed, although no further signs could be detected. This trouble then seemed to clear up, and for a few days the temperature dropped down to 99·4, whilst the pulse and respiration rate also decreased. The patient felt better every day, and he told his wife that he was well satisfied with the manner in which he had been treated at the Adelaide Hospital, and thought that if he had only entered the institution a month sooner that he would have been getting about again.

I was beginning to think that the wound was clean enough for the patient to go back to Adelaide ward to be skin-grafted, when, unfortunately, a large secondary hæmorrhage from the femoral vein occurred. Lacey was seen at my request soon after by Professor Watson and Dr. Giles, but nothing could be done, and he died the same day (June 20). I signed a certificate attributing death to pyæmia. Four days later a constable called and said that the Coroner had noticed in the *Advertiser* that a man had died from burns, and he asked for particulars. I gave him a verbal report, explaining that the patient had been burnt 18 years previously. The same afternoon Mrs. Lacey called with a certificate to the effect that the death of her husband was caused primarily by accident. I told her that this was the first that I had heard of any accident, and, moreover, I thought that the old scar had more to do with it than had the scratch. Consequently I refused to sign it, but I gave her a duplicate of the death certificate.

About three weeks later I was summoned to assist at the post-mortem examination. The only lesion revealed, besides the ulcer and cavity in the groin, was an abscess at the apex of the left lung. After giving my evidence I was subjected to a cross-examination of 3½ hours' duration. In this I consider that I was treated most unfairly and sharply, so much so that I asked the Board of Management to appoint a committee of enquiry, which request was acceded to.

The verdict was that "David Lacey, at Broken Hill on December 14th, 1907, was injured by a truck overturning on his leg, and was sick of the wound for a long time, and on June 20th, 1908, died thereby at the Adelaide Hospital."

Dr. Ramsay Smith held the position of physician to the infectious department at £100 per annum until October 31st, 1903, when he resigned in order to give effect to a recommendation of the Board of Enquiry. Dr. Smeaton writes to me that he then took charge, with the knowledge and concurrence of the Board. Dr. Chapple took over the work upon his appointment, and I did likewise.

In the course of evidence I remarked that I had known several fatal cases of septicæmia and tetanus to have followed scratches which had never been reported. The Coroner remarked "that if death is due to a scratch, it is death by violence and not natural causes, no matter what kind of a scratch it is; it is not for the doctor to decide whether it is of a nature to be reported to the police, nor is it for the doctor to determine whether it is of a suspicious character or not."

Moreover, in reply to my counsel, it was ruled that a prick from a thorn received whilst gardening, if

followed by fatal septicæmia, is a death from violence and one to be reported.

Section 6 of the Coroners Act of 1884 reads: "Wherever any dead body shall be found or any sudden death, or death attended with suspicious circumstances, shall occur, then every person knowing, or becoming acquainted with any such death, or that any dead body has been found, shall forthwith give notice to the nearest constable, and in default shall on conviction before two Justices of the Peace for such neglect or omission forfeit and pay a penalty not exceeding £10."

I have been advised that suspicious circumstances legally only applies to when the death may have been due to the culpability or perhaps the negligence of some person. The official police report from Broken Hill stated: "He made no complaint against any person, nor attributed the occurrence to the fault of anyone; no report was made to the police of the matter, neither were any suspicious circumstances whatever discovered at the inquest."

Moreover, it is intended that a certain amount of discretion is to be left to the medical attendant. I have been further advised that I was quite justified in giving a certificate of death.

The *Advertiser* of July 17th, 1908, in its leading article, pertinently asks:—"What gain could have resulted from the exhumation of the body when it was manifest from the outset that death had, as the hospital doctors agreed, followed from blood poisoning, due to the reopening through an accident of a wound received some 18 years ago?" It proceeds:—"It may be doubtful whether it is worth while to exhume a corpse for the mere purpose of solving what is really more a question of legal definition than of evidence, viz., whether the cause of Lacey's death was natural or otherwise." After further discussion, it summarises that "for purposes of general medical practice Lacey may quite legitimately be assumed to have died of natural causes."

The Relationship between the Medical Profession and the Coroner.

By W. T. HAYWARD, M.D., President Medical Defence Association of South Australia.

I HAVE been asked by the Council of the Medical Defence Association to bring the above subject under your notice, for we believe that it is one that requires the attention of every member of the medical profession. I have no intention of alluding to the personal aspect of the relationship of the Coroner with individual members of the profession, much as might be said on the subject, but simply to speak on the broad question as to what cases should be reported to the Coroner through the police. Ever since Dr. Ramsay Smith has held the position of Coroner there has been a feeling of unrest in the minds of medical practitioners on this matter, owing to the remarks he has made thereon at inquests from time to time, and this feeling of doubt and uncertainty has been accentuated during the past six months. We are a law-abiding body of men and are perfectly willing to abide by the law, but to do this we must know what is the law, and this we do not know, for, as laid down by the Coroner at different times, it is utterly different from what we have conceived it to be. With a view of straightening out this unsatisfactory condition of affairs the Council of the M.D.A. thought that the best course would be to directly approach the Coroner and ask him personally if he would enlighten us on the subject. Perhaps this method was an incorrect one; but I need hardly tell you that it

was absolutely *bona fide* on our part, and not, as the Coroner suggested by implication, in the nature of a trap. However, he said "the letter had no right to have been sent," and if ethically we did commit a mistake we regret having done so. The letter elicited, in the course of a summing up at an inquest, a tabulated list of circumstances in which, in the opinion of the Coroner, medical men should communicate with the police. Had it been unaccompanied by certain objectionable remarks it would have been more thankfully received; we are nevertheless obliged to him for the information given. This is the list:—

The law required many cases to be reported in which a coroner would not be justified in holding an inquest, and the less that a medical practitioner or any other person reporting, concerned himself with the question of whether or not an inquest would be held or should be held the happier he would probably be. In this State, by common law or under special statute, the cases that required to be reported to the police by medical practitioners or others were:—1. Deaths of prisoners in gaol. 2. Deaths of prisoners who might die outside the gaol, in hospitals or elsewhere. 3. Deaths occurring in lodging-houses in Port Adelaide, Adelaide, Port Pirie, Palmerston, Woodville, and Petersburg. 4. Deaths of persons who were slain or drowned. 5. Deaths of persons who died suddenly, even when the cause might presumably be natural, e.g., a person dropping dead in the street or found dead in bed without a history of immediately previous illness. 6. Deaths of persons who died in suspicious circumstances, suspicious being defined as including such conditions as "a body being found in an empty house, an unfrequented place, a public-house, or a house of ill-fame." 7. Deaths of persons which were not clearly due to the ordinary course of nature or to sickness that had arisen in the usual course of nature—that was all cases in which there might be any ground for believing or suspecting non-natural causes. This would include unwholesome food, bad drink, difficult labours in child-bed, septic infection by midwives and medical practitioners, ptomaine poisoning, etc. 8. Deaths caused indirectly or accelerated by non-natural causes. 9. All deaths occurring under anæsthetics, or due to anæsthetics, or occurring during surgical operations. There was no limit as regarded time of injury which caused the death; the "year and a day" limit did not excuse any person who failed to report a death caused by injury at any time previously.

Deaths in Institutions.—In some Australian States all deaths occurring in hospitals within a certain time after admission had to be reported to the police (not by statute law), but this had not been observed in this State. It might be that private hospitals were included in the definition of a lodging-house in section 1 of the Lodging House Act, 1877; but it had not been the practice to report deaths occurring in such unless there had been some unusual circumstances connected with them. There seemed no doubt, from a dictum of Lord Chancellor Campbell's, that all deaths occurring after operations in public and private hospitals were proper subjects of enquiry, though not necessarily of inquest, and that such should be reported to the police. He ought to state also, that Sir John Jervis, perhaps the greatest of all authorities on coroners' law, gave model inquiries on the death of a child by sudden delivery, on the death of a woman by a difficult and hard labour, and on a death from excessive drinking, showing that such cases were not only proper to be reported to the police, but were also cases in which inquests might properly and legally be held. The distinction the law drew here was that while normal labour was a physio-

logical process which had no ill-effect on either mother or child, a difficult or delayed labour, resulting in the death of either of them, was non-natural, and, therefore, the death ought to be reported to the police. At the same time, the greater discretion entrusted to a coroner by the Act here in force made such inquests in most cases unnecessary. The principle on which deaths in public institutions, such as prisons, lunatic asylums, and lodging-houses, were made the subject of enquiry, was that the public mind should be satisfied that persons in such institutions, who were outside the circle of their relatives and acquaintance, received proper medical care and attention. If one read the statute law of England and of certain Australasian States, they would see that there was a practical trend in modern legislation to the legal protection of life. Finally, in all cases of doubt as to whether to report or not a practitioner should communicate with the police and be silent towards every one else, unless he should communicate with the coroner direct, because there appeared to be some special reason for taking this course. There was no reason why a practitioner should take upon himself a responsibility which the law placed, not upon him, but upon a coroner.

This was supplemented by remarks, with quotations from legal authorities that inferentially implied that, in addition to the above, all deaths following surgical operations and deaths subsequent to difficult labours should also be reported.

Other points having arisen after our letter to the Coroner had been written, touching certain medico-legal contingencies, we decided to consult Mr. J. J. R. Murray, K.C., and ask his opinion concerning them. We received the following opinion:—

1. Every person who knows that a felony has been committed must disclose it to a magistrate or to the police; otherwise he is guilty of misprision of felony, which is a crime punishable with fine or imprisonment. If the person having this knowledge not only does not disclose it, but renders assistance to the felon, he becomes an accessory after the fact to the felony, and is liable to imprisonment for not exceeding two years. A medical man does not become an accessory by merely giving medical or surgical treatment, though he is still guilty of misprision of felony if he does not disclose the offence.

2. Every person who knows of or becomes acquainted with any case of death attended with suspicious circumstances must forthwith give notice to the nearest constable, under a penalty of not exceeding £10. (Coroner's Act, 1884, section 6.)

3. Every person who is called as a witness in a court of law must truthfully answer the questions put to him, unless his answers would tend to incriminate him (in which case he may object to answer on that ground), or unless he is a solicitor who stands in the relation of legal adviser to the person accused, and the questions asked would involve the disclosure of facts ascertained during the continuance of the retainer, in which case he can claim to be excused from answering the questions on the ground of privilege. If a witness, who is not exempt from the duty of answering questions on either of the grounds mentioned, refuses to do so, he may be punished with fine or imprisonment for contempt of court.

There is another duty which every member of the community owes to the State, viz., to assist in the investigation of any alleged misconduct, and to promote the detection of crime. If this were not so it would be practically impossible to maintain law and order in the community. But the duty is one which the law does not at present directly enforce, except in the cases enumerated above. It recognises it, how-

ever, indirectly in this way, that if a person has knowledge of facts which reasonably lead him to conclude that a crime has been or is about to be committed, and he gives information to the police or to the persons interested, whether in answer to enquiries or not, the law will protect him against liability in an action for libel or slander, even though the suspicion is proved to have been without foundation, by holding that the occasion of the communication was privileged; but he may lose the benefit of this protection if the person accused of the crime can show that the communication was made maliciously, that is, from ill-will or spite, and not honestly for the purpose of exposing crime.

The substance of the last paragraph may be expressed shortly as follows:—There is a social, not legal, duty to assist in the detection of suspected crime. A person ought as a citizen to give information as a matter of social ethics, and if he does so, reasonably and honestly, the law will protect him against an action for libel or slander, but he is not bound to give the information, except when called as a witness in a court of law, and no evil consequences can be visited upon him for refusal, except the disapprobation of public opinion.

In making any communication of this kind to the police the informant should confine himself strictly to narrating facts. If he is relying on any statements made to him by other people, he should not speak of the facts contained in them as within his own knowledge, but should mention the source from which he derived them.

In the recent case of *R. versus Cave* (Reg. and Adv. 25th April, 1908), the Chief Justice said a doctor is not a detective. This applies equally to any other member of the community who is not engaged in the special service of exposing crime. What it means is, that, except in the cases enumerated above, where the law punishes an omission to disclose knowledge of crime, or to give information, a person is not bound by law to communicate facts which he may regard as of a suspicious character to the police, though he may legally do so, if he chooses, and will be protected if he does so in good faith, even though the accusation turns out to be baseless.

Whether a medical man should disclose suspicious facts that come to his knowledge during and in consequence of the relation of doctor and patient is a question of ethics which doctors must decide for themselves. That their mouths cannot be closed by a criminal choosing to consult them will be freely admitted. On the other hand, mere surmise on their part would not, as a general rule, justify them in communicating with the police. But if the conditions they observe cannot have been produced by lawful means, or if facts come to their knowledge which, coupled with other ascertained facts, leave no reasonable doubt in their minds that they possess the means of proving a crime, they would not only be justified, but in the case of a felony, I think, would be under a duty, to communicate with the police. Applying these principles to the specific questions put to me, I am of opinion:—

1. That medical men are not bound as a matter of law to give the police information as to facts which have come to their knowledge professionally, that lead them merely to suspect that their patient has committed a crime, though if they know that he has committed a felony it would be their legal duty to communicate the facts to the police.

2. That there is no legal duty upon practitioners to communicate with the police in suspected cases of abortion, where the patient is in immediate danger of death, though it is extremely important they should do so for their own protection. If the evidence of unlawful abortion be so strong as to be equivalent to knowledge, it would,

I think, be the doctor's duty to disclose the facts, and, of course, if the patient dies, it is his duty to inform the nearest constable, as required by section 6 of the Coroner's Act.

3. That a doctor who gives information to the police of facts which reasonably lead to the inference that a crime has been committed, would have a good defence to an action for libel or slander, unless it could be proved against him that he had acted from motives of ill-will or spite, and not for the purpose of exposing crime.

No other action would lie *e.g.*, for malicious prosecution or false imprisonment, if the doctor confined himself strictly to giving information, and declined to institute or authorise a prosecution himself.—(Signed) C. J. R. MURRAY.

Just recently the "Lacey case," the medical details of which you have just heard read by Dr. Wells, was brought under our notice. The action of the Coroner in exhuming the body and holding an inquest, the obligation to hold such being so foreign to our preconceived ideas on the subject, determined us to obtain another opinion from Mr. Murray as to the cases that medical practitioners were bound to report. We received the following reply:—

[Copy.]

OPINION.

The question on which I am asked to advise is—In what cases is it the duty of medical practitioners to report deaths which come to their knowledge to the coroner or to the police in South Australia?

Leaving out of consideration deaths which occur in a prison, a lunatic asylum, or a lodging-house, to which the Lodging House Act 1887 is applicable, a coroner in South Australia has jurisdiction to inquire concerning the manner and cause of the death of any person who is slain or drowned or who dies suddenly or under any suspicious or unusual circumstances. (See the Coroners Act 1884, section 4.)

The provision which the law makes for bringing deaths that are cognisable by the coroner, directly or indirectly, to his notice, or to that of the police, are as follows:—

1. By section 6 of the Coroners Act, 1884, every person who knows of or becomes acquainted with any case of sudden death, or death attended with any suspicious circumstances, or the finding of any dead body, is required to give notice to the nearest constable under a penalty of not exceeding £10. This enactment applies to medical practitioners equally with other persons, and covers the three cases specified only. There may be some difficulty in defining what is meant by "a death attended with suspicious circumstances," but in my opinion it means a death which there is *prima facie* ground for suspecting has been caused by the unlawful act or negligence of some third person, or by the act of the deceased himself, or as to which there is reason to doubt whether it was not caused by any one of those means. Deaths "under unusual circumstances," which are even more difficult to define, are not included in that enactment, probably for the reason that there would be too much difference of opinion as to when a death came within the category, and it would therefore be unjust to impose a penalty in a matter of so much uncertainty.

2. The Medical Act Amendment, 1889, section 5 (b) prohibits the burial of any deceased person without a certificate of the cause of death under the hand of a legally qualified medical practitioner, or an order for burial signed by a coroner under the Coroners Act,

1884. The medical practitioner's certificate here mentioned is that of the doctor who has been in attendance on the deceased or who has examined the body. It is to be made to the best of the practitioner's knowledge and belief, and delivered to the nearest of kin or occupier or other person required to give information to the District Registrar of Births, Marriages and Deaths, for delivery to that officer or to the Registrar-General (see Births, Marriages and Deaths Registration Amendment Act, 1907, sec. 5). There is a penalty for refusing or neglecting to give the certificate of not exceeding £5. The effect of this enactment is that if a medical practitioner is unable to give the certificate which would occur when he could not state what was the cause of death, or when he considered the circumstances attending the death were "suspicious," his duty would be to report the case to the coroner.

3. According to the English text-books (Jervis on Coroners, 4th edition, p. 31, and the Encyclopædia of the Laws of England, 2nd edition, p. 681), where the duty of informing the coroner of a death which ought to form the subject of an inquest is not thrown by statute on any particular person, it is the duty at common law of the person about the deceased to do so. Whether this is the law in South Australia is open to doubt, but the same result is obtained substantially by the prohibition of burial without the certificate of a legally qualified medical practitioner or a coroner's order already mentioned.

To sum up, the cases in which it is the duty of a medical practitioner in this State to report deaths to the coroner or to the police are, in my opinion:—

1. Cases of sudden death. 2. Cases where bodies have been found dead. 3. Cases of deaths attended by "suspicious circumstances" as above explained. 4. Cases where he has been attending the deceased or has been called in to examine a body after death, but in which he is unable to certify as to the cause of death.—G. J. R. MURRAY, City Chambers, Pirie-street.—30th July, 1908.—Dr. W. R. Cavenagh-Mainwaring, Secretary of the Medical Defence Association, Adelaide Club.

You will note the marked discrepancy between the opinion of Mr. Murray and the dictum of Dr. Smith. Under these circumstances the Council of the M.D.A. decided to bring the whole question before you, and suggest that you, as the recognised leading medical society, should appoint a committee with a view of submitting the matter to the Attorney-General.

Opium Traffic.—During the first six months of this year there have been 26 seizures of opium in West Australia, comprising 1290 ounces, at an estimated value of £670, as a result of which fines amounting to £420 have been imposed. In 1907, the Customs officials seized 2260 oz. of the drug, of the estimated value of £944. This represented 45 separate seizures, which produced £560 in fines. Under Government decree, such opium has to be destroyed, but it is thought that use should be made of it, for each year a fair quantity of the drug is imported for medicinal purposes. It is suggested that the Government should turn the smuggled article into a source of revenue by selling it to those who are legally entitled to import it. The opium in question is the gum opium, which has gone through a process to secure the elimination from it of all impurities and foreign matter. During the past 18 months some 3500 oz. of an estimated value of £1600 have been destroyed in Western Australia.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of July, 1908:—Registered deaths in the metropolitan municipalities during July numbered 514. This figure has been obtained after the distribution to their proper districts of deaths in general hospitals and hospitals for the insane, and is equivalent to an annual death-rate of 10.84 per 1000 of the estimated population. When corrected by the inclusion of the metropolitan proportion of deaths in the Parramatta, Rookwood, and Liverpool Benevolent Asylums, the death-rate is 11.42 per 1000. Infectious diseases caused 16 deaths, of which puerperal fever caused 5; typhoid fever, 4; diphtheria, 3; influenza, 2; and scarlet fever and whooping cough one each. Diarrhoeal diseases were responsible for 22 deaths. Phthisis with 45 deaths, respiratory diseases with 86 deaths, cancer with 31, and Bright's disease with 31, all caused average mortalities. Diseases of the heart and blood vessels were more fatal than usual, and caused 95 deaths. Among infants, 77 deaths occurred. This is equal to an infantile mortality rate of 63 per 1000 births, which is the lowest rate in July for many years. The number of attacks of infectious disease notified was 204, to which total scarlet fever contributed 121, diphtheria 61, and typhoid fever 22. No cases of plague were notified, and only one plague rat was taken during the month. Within the city of Sydney 19 cases of pulmonary consumption were notified under the City Council's by-laws, and 11 premises were disinfected by the municipal authorities after the removal or deaths of consumptive persons.

Infectious Diseases.—Only 25 cases of typhoid fever for the whole State were reported to the Health Department during the fortnight ended July 13th, but with seven deaths the mortality was unusually heavy. Ten cases (two deaths) occurred in the metropolitan districts, one case in the Hunter districts, and 14 cases (five deaths) in the remainder of the State. Scarlet fever continues very prevalent, and 113 cases with two deaths were reported for the fortnight. 41 cases (one death) belonged to the metropolis, eight cases occurring within the city proper; 40 cases came from the Hunter districts, and the remainder of the State reported 32 cases (one

death), of which 14 originated in Lake Macquarie shire. The number of cases of diphtheria reported was 82, with nine deaths, made up as follows:—Metropolitan districts, 25 cases, two deaths; Hunter districts, two cases; remainder of State, 48 cases; Goulburn, seven, and seven deaths.

Food Adulteration.—During June 202 samples of food (144 of milk, 31 of groceries, and 27 of spirits) were submitted to the Board of Health by various metropolitan and country local authorities under the Health Act for analysis. Adulteration was detected in 12 samples, and in 12 cases the chemical evidence was sufficient to support prosecution. The board has directed that one vendor be warned. Acting under instructions from the North Sydney Council, its sanitary inspector has lately taken samples of foodstuffs offered for sale within the municipality. Some of these were forwarded to the Government analyst, whose report states that with respect to foods generally a very satisfactory analysis was attained, there being no cases of adulteration. But in a number of vinegar samples submitted five were found not to be in accordance with standard. About eight samples of milk were dealt with, and none of them were found to contain any preservative. All but one were of good quality, but the exception showed $7\frac{1}{2}$ per cent. of added water—sufficient to support a prosecution if undertaken. The council at its last meeting decided to caution those whose goods did not come up to standard, but it will take more drastic steps if the practice of adulteration is persisted in.

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, July, 1908:—

Colour	22° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	8.1000
Chlorine	3.0500
Nitrogen as free ammonia	.0004
" " albuminoid ammonia	.0146
" " nitrites	.0000
" " nitrates	.0028
Oxygen absorbed in 4 hours	.0839
Permanent hardness	1.9
Total hardness	3.25

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during July, 1908:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 57° C
			Suspended Solids.	Chlorine.	Nitrogen as					Oxygen Absorbed	Organic Nitrogen.	Oxygen absorbed in Four hours.	
					Free Ammonia.	Organic N.	Nitrates.	Nitrites.	Total N.				
Ohatswood ..	.. M'k'd	Nil	2.12	10.4	1.115	.244	.017	1.283	2.658	.476	87.0	89.2	No decomposition
Folly Point..	.. Faint	Nil	.64	10.6	2.895	.200	.011	.598	3.704	.564	85.2	83.1	„ „
Balmoral ..	.. M'k'd	Nil	2.16	11.0	2.130	.428	.018	.198	2.774	.839	75.7	76.5	„ „

Victoria.

Infectious Diseases.—The returns of infectious diseases furnished to the Board of Public Health showed that typhoid and scarlet fever cases reported during the fortnight ended July 30th were about normal for the time of the year, there having been 10 typhoid cases and 26 scarlet fever cases in the whole of the State. The number of diphtheria cases, however, was somewhat above the average. In the whole State 96 cases were reported, of which 46 were in the metropolitan area. Alderman Burton said more power should be given to health inspectors, who, in case of an outbreak of diphtheria, should have power to close State schools. The chairman (Dr. Norris) said that in no part of the world was such power given to health inspectors. If the health inspector immediately telegraphed to the Education Department when a case of diphtheria occurred, the department would at once close the school, if such a course were recommended. If municipalities would follow up the cases and see that the patient was isolated until free from disease, the outbreaks would be rendered less frequent.

Clean Glasses.—Under the provisions of the Pure Foods Act a new regulation has come in force to provide that due cleanliness shall be observed with regard to drinking vessels at hotels and other licensed premises. Where possible, it is insisted that all glasses, etc., shall be flushed out by clean, running water; that is, the water must be directly used from a tap, and must be pure. The old system of just dipping glasses into a tub of water and pulling them out immediately will not be tolerated. Dr. Norris stated at a recent meeting of the Board of Public Health that a mere trough with a tap attachment would not do, and that he intended to see that the regulation was strictly enforced.

Consumptive Patients.—A case arose recently in which an order was made by the Fitzroy bench, on the application of the Health Inspector, for the forcible removal of a consumptive patient from a boarding-house at which he resided to the Melbourne Hospital. A reference was made to the case by the chairman at a subsequent meeting of the Health Board. Dr. Norris remarked that the bringing of the case had evidently stirred up health officers as to their responsibilities in similar cases. He had received a telegram from the health officer of Edenhope, in the western district, who brought under notice the case of an indigent consumptive whose home was in a very bad state, and asked whether the patient could be sent to the consumptive sanatorium. He had replied that the case was not a fit one for the sanatorium, but if an application was made by the local health board to a justice of the peace, the patient could be removed to the local hospital, or the health board could take charge of and isolate the case. He had suggested that the patient should be removed to a tent while his house was being cleansed and disinfected.

South Australia.

Health of Adelaide.—The medical officer of Health reports that during the fortnight ended July 18th one case of typhoid fever, five of diphtheria, two of scarlet fever, one of erysipelas, one of measles, one of malaria, and seven of pulmonary tuberculosis were notified. The case of typhoid fever was imported from the suburbs for hospital treatment. Of the five cases of diphtheria there were imported from the suburbs for hospital treatment. The re-

maining two cases occurred in one house, and were removed to hospital for isolation and treatment. The two cases of scarlet fever were imported from the suburbs for hospital treatment. The case of erysipelas was removed to hospital for isolation and treatment. The case of malaria was imported from Western Australia, and was removed to hospital for treatment. The case of measles was isolated at home. Of the seven cases of pulmonary tuberculosis two were imported for hospital treatment. Of the remaining five cases three were removed to hospital and two were at home under the city trained nurse's supervision. The city trained nurse had made 98 visits to 50 cases during the fortnight and finally disinfected nine houses. Of the 50 cases under her care two were suffering from diphtheria, one from erysipelas, one from measles, and 46 from pulmonary tuberculosis.

Tasmania.

Pure Food.—The question of the purity of the people's food was before the Hobart City Council last month. Alderman Atkins moved the following motion—"That in the opinion of this Council, the present arrangements for securing purity of foods are defective, and that legislation should be enacted on the lines suggested by the Chief Health Officer in his last annual report, whereby municipal councils could have analyses made of all foods free of charge at a central depot to be established by the Government." He said that the matter was one of some importance. The Council found a good deal of difficulty at the present time in getting analyses. They had to go to the Government Analyst practically in the same position as a private person applying for an analysis. Under the Health Act of 1903 it was incumbent upon the Council to supervise the purity of food and drugs sold within its jurisdiction. The motion was carried unanimously.

New Zealand.

The Incidence of Typhoid Fever.—The original "spot" map showing the incidence of typhoid in Auckland, which was exhibited at the drainage conference early in the year, has now been brought up to date. In addition to the use of flags showing the number of cases of disease, various colours have been introduced in the map. The flags are placed as near as possible to the places where the cases were first notified, and the colours used are of various intensity, corresponding with the intensity of the disease in the different districts. Archill, for instance, where no typhoid occurred during the period under consideration, is shown in white, but its near neighbour, Eden Terrace, is coloured a murky black, and so is Newmarket. The map takes in a period from April 1st, 1907, to March 31st of the present year. During that period the districts most affected by typhoid were the city proper, with 88 cases, Mount Eden 18, Newmarket 23, Eden Terrace 19, and Mount Albert 11.

Diphtheria and Poultry.—In a letter to the Auckland City Council recently the District Health Officer, Dr. Purdy, said there was undoubtedly some connection between the keeping of poultry and outbreaks of diphtheria, and suggested that where diphtheria broke out poultry-keeping should be abolished within the city area. The finance committee recommended that, in view of the letter from the District Health Officer, the provision of the by-laws dealing with poultry yards should be strictly enforced, and the Council agreed to the recommendation.

Queensland.

Bubonic Plague.—Dr. Ham, Commissioner for Public Health, reports for the four weeks ending August 8th, 1908:—*Brisbane*.—Case No. 13: M.H., a male, aged 50 years, employed as a ticket collector at the Theatre Royal. Patient resides in Spring Hill. One plague-infected rat was found on July 8th and one on the 9th idem on the premises of the Theatre Royal, which locality has been under the strict supervision of this department. Cultures and guinea-pig have been inoculated in this case. Plague in rodents.—During the period 1370 rats and 205 mice were destroyed, 1112 rats and 197 mice examined, and 8 rats found to be infected. Date of last infected rat, July 31st, 1908.

HOSPITAL INTELLIGENCE.

Brisbane Children's Hospital.—The thirty-first annual meeting of the Children's Hospital was held last month. The annual report stated that considerable progress had been made with the erection of the new buildings, though various circumstances have delayed their completion. Soon after the commencement of the hospital year, Dr. Constance M. Cooper resigned her position as resident medical officer, consequent on her departure for India. Dr. Jean Thomson was appointed her successor, and she has been re-appointed for a second term of office. Dr. Robertson has been welcomed back by the committee, and thanks are expressed to Dr. L'Estrange, who acted on the hon. medical board during his absence. The report of the building sub-committee states:—Since the year 1899 no new buildings have been added until this year, which will see the opening of the infants' new ward, and the erection of a new operating theatre, replete with all the most approved and up-to-date fittings and appliances. The former has been accomplished owing to the success of a *fête* organised by Lady Chelmsford, which realised the large sum of £1574 19s 9d. The money to build the operating theatre came in the form of a bequest from the late Mr. James C. Moffat, who appointed the hospital committee his residuary legatees on condition that a ward should be built and named after his daughter Sylvia. The committee desire to state that the revenue from this source amounts to between £300 and £400 per annum, but it will be more than absorbed by the increased number of patients for which accommodation will be found. The contemplated improvements are a diphtheria ward, for which the "Courier" fund realised £1084 18s 10d, and with the subsidy £2712 7s 1d. It is determined that the new ward will be built and equipped with modern clinical appliances to enable this disease to be successfully fought. The harassing difficulty of finding sufficient and suitable ground for the above necessary new buildings has happily been overcome by the welcome gift of two acres of land from the Government and Municipal Council. The financial statement was as follows:—Balance from last year, £47 4s 4d; subscriptions, £901 14s 7d; collection boxes, £47 10s; schools, £1309 3s; total receipts, £8513 0s 10d. The expenditure—maintenance £1980 4s 5d, domestic £468 17s 10d, salaries £1811 14s 5d—amounted to £5363 0s 10d, and investment £1150 in South Australian Government stock. The building fund shows a balance brought forward last year of £2659 18s 7d; proceeds from sale of baskets, £5 2s 6d, and interest from bank, £69 1s 3d, making a total of £2734 2s 4d. The expenditure included contract account £1330 18s 9d. Dr. Jean Thomson submitted the following medical report:—1298 in-patients treated. 11,000 attendances have been recorded in the out-

patient department, and about 2000 at South Brisbane. The work during the year has been very heavy. In September and October an outbreak of measles occurred, necessitating the closing of the hospital to visitors, and only admitting the most urgent cases. Diphtheria was not so prevalent this year, and the death rate was 8 per cent.—death in nearly all cases being due to delay in treatment. 606 operations were performed during the year. Typhoid contributed 42 cases and no deaths; gastro-enteritis 68 cases, with a death rate of 61·8 per cent. Some of the cases were in the hospital only a few hours. There has been no increase in the operative work in the eye, ear, nose, and throat departments. The sanatorium at Sandgate has done good work; 82 children were sent down. The pathological and bacteriological work has been done by Mr. Pound and his assistants. Thanks are also due to Dr. Love, who kindly does all the X-ray work.

Brisbane General Hospital.—At the monthly meeting of the Brisbane General Hospital committee, on July 29th, the medical report, covering the two weeks ended July 25th, showed that the in-patients admitted numbered 154. During the same period there were discharged—cured or convalescent, 37; relieved or improved, 88; in *statu quo*, 6; sent to the reception-house, 1. The deaths during the same period numbered 14; remaining under treatment, 233. The out-patients' attendances at the hospital totalled 1030, and at the South Brisbane Branch Dispensary, 140. At the convalescent home at Sandgate 17 were admitted, and 15 discharged, leaving 14. Dr. Semple, resident medical officer, wrote tendering his resignation. This was accepted. The finance committee reported as follows:—Maintenance account, A.J.S. Bank, debit balance at last meeting, £1540 6s 9d; receipts, £152 11s 5d; due from the Government, £2000 12s 11d; estimated credit balance, £612 17s 7d. Special contributions:—Weavers' Club (per Mrs. E. S. Jackson, contribution No. 15), £5 5s 4d; Executive Building Benevolent Fund, £17 14s; Government Printing Office (permanent staff, composing and book binding departments), £5; "Courier" fund (for re-roofing women's ward), acknowledged July 27th, £28 17s 3d; previously reported, £21 17s; since received, £7 0s 3d. The medical superintendent reported that for the past year the number of phthisical cases had on an average accounted for occupation of nine beds daily. All were in an advanced stage, and, while unsuitable for recommendation to the Dalby Curative Sanatorium, the Diamantina Hospital was insufficiently provided to receive them. If such a number was to be maintained in the future more suitable accommodation would be necessary. The secretary (Mr. A. P. Payne) explained that the constitution of the hospital disallowed of the maintenance of such patients. It was, however, affirmed that the unfortunate people could not be turned adrift, and the committee decided to represent the matter to the Government.

Foundling Hospital, Melbourne.—At the thirty-first annual meeting of the Foundling Hospital and Infants' Home, held on July 29th, the report of the committee showed that there was an increase of eight in the inmates, as compared with the previous year, the total, 200, being the largest that had been in the hospital during any one year. The number was made up as follows:—Remained in the institution on 30th June, 1907, 55; boarded out, 30; admitted during the year, 61, of whom 44 were under one month old. Adults: Remaining in the institution on 30th June, 1907, 16; admitted during the year, 38. The 200 inmates were accounted for as follows:—Infants and children:

Discharged, 22; adopted, 7; boarded out, 41; died, 13; remaining in home on 30th June last, 63. Adults: Discharged, 36; remaining in home at the end of the financial year, 18. Some of the mothers who were discharged returned to their friends, but the majority had situations found for them. The training of domestic nurses was proving most successful, and it was regretted that accommodation was too limited to allow the admission of a larger number at the same time. The statement of receipts and expenditure showed the ordinary income as £1099, including Government grant, £750; municipal, £74; private contributions, £202; proceeds of entertainment, £72. Contributions by patients amounted to £296; and the extraordinary income was set down at £380, including Government grant, £200; Felton bequest, £40, etc. In presenting the medical report, the hon. physician, Dr. A. Jeffreys Wood, said the death rate had not been quite as low as it had been, albeit the health of the inmates had been generally satisfactory. A number of children suffering from congenital diseases had been admitted during the year. Six out of thirteen deaths had been due to such cause. He could not speak too strongly on the question of quarantining—an isolation ward was absolutely necessary. Children admitted at the present time with an apparently ordinary cough, might, in a week's time, develop whooping cough, and the epidemic, under the existing conditions, would run through the institution like wild fire. The staff asked, therefore, that an isolation ward be given them in order that they might properly control the children coming in for a fortnight, so that they might be better able to check the spreading of infectious diseases.

Launceston Hospital, Tasmania.—At the last monthly meeting of the board of management of the General Hospital the finance committee reported that the amount received during June from paying patients was £286 5s 2d. The amount remaining outstanding at the end of the month was £348 8s 5d. The total receipts in fees for the 12 months ending June 30th were £2507 18s 2d, as against £2400 15s 8d received from the same source during the preceding financial year. An exceptionally large expenditure had had to be met by the board during the year just closed, the wards having been continuously full. It was, therefore, very gratifying to know that this heavy expenditure, totalling £8307 6s 6d, had been met by the unconditional Parliamentary grant of £4500, and the conditional grant of £1300, assessed on the £1 for £1 basis, together with £2507 18s 2d received in the shape of fees. The total income exceeded the total expenditure by the small margin of 11s 8d. It had been hoped that there would be a credit balance of a few hundred pounds, which could be allocated as a nucleus of a fund for providing an outpatients' department and a dental department; but the strain on the board's resources, owing to the circumstances alluded to, had prevented this. During June 107 patients were admitted, and a like number discharged. There were 11 deaths. Of the patients admitted, 52 were placed on the free list, whilst 52 were adjudged to pay fees. The following letter, sent by the chairman to Dr. J. McL. Pardey on July 21st, was read:—"Re the special hospital committee. At the outset of the proceedings when Dr. Ramsay raised the question as to your right to adjudicate, you stated that you had no intention of retiring from the committee during the progress of the inquiry. Some accusations were brought against you, and therefore it seems to me that there would be great incongruity in your taking part in the preparation of a report to be submitted to the board. I purpose, therefore, at the next board meeting to request the

board to direct me as to what they wish in the matter, but, in the meantime, as an act of courtesy, I send you this communication that I may know what your attitude is regarding this matter." To this the following reply was read:—"I would remind you that the special committee mentioned in your letter was appointed to inquire into charges brought by me against the management of the Launceston Hospital. There was no mention of any counter charges against myself or anybody else. If the surgeon-superintendent wishes to bring any charges against myself, he will have to report them to yourself as chairman, and then they will be inquired into. I would also point out that in your letter to me on June 23rd, 1908, you state: 'It would be a most unreasonable procedure and contrary to all the principles of British justice, if accused persons were to be deprived of the right of knowing beforehand the nature of the accusation. I trust, on reflection, you will see the necessity for compliance with so reasonable a request, and which I, as a member of the said committee, and as chairman of the board of management, completely endorse.' Now, as I know nothing of these accusations against me, I must stick out for the same privilege, and ask you to get the surgeon-superintendent to make his charges in the usual way. As these charges cannot be considered except in the usual way, I see no incongruity in my taking part in the preparation of the report on charges brought forward by me.—Yours, etc., Jas. M. Pardey. P.S.—I have sunk my individual position inasmuch as I have not claimed the position of the chairmanship of special committee to which I was entitled to as mover of the original motion, and I have given every attention to the pros and cons of the entire position, and decline to be ousted from the committee by yourself." Dr. Thompson moved that the letters be referred to a special committee, and eventually this motion was carried.

Zeehan Hospital, Tasmania.—At the Hospital Board meeting on July 14th the finance committee's report showed receipts for the past month £234 16s 2d, and expenditure £295 17s 11d. The contractor for the convalescent ward had been paid £125, leaving a balance to the fund of £175 8s 9d. Two weeks' further extension of time was granted to the contractor to complete the ward. The visiting committee recommended that the board should make good the damage to the retaining wall, as the Municipal Council had disclaimed any responsibility.

Jamestown Hospital, S.A.—At the annual meeting of subscribers to the hospital held last month, the chairman, in his report, stated that the number of patients had exceeded any previous number treated, although the expenditure had been less. By the late Mr. John Maslin's will the hospital had been bequeathed £100. The medical officer's report showed that 231 patients had been treated. The number of typhoid cases was seven, only two of which were local, and there had not been any deaths. Hydatid disease accounted for three patients without a fatality. The total mortality had been 14, or just over 6 per cent. The balance sheet indicated: Subscriptions, £206; patients' fees, £313; Government subsidy, £500, which, with last year's balance (£379) and sundries, made a total of £1445. The expenditure had been £950, and £187 for the memorial ward, which left a balance of £308.

Windsor Hospital, N.S.W.—At a committee meeting of the Hawkesbury Benevolent Society and Hospital, held last month, a further report by Dr. R. J. Millard, assistant medical officer of the Govern-

ment, on the various sites proposed for the new hospital, was read. The immediate occasion of this report, Dr. Millard pointed out, was the proposal of the committee to build on the present hospital site an addition consisting of an operating room and two wards, at a cost of £1500. He condemned this scheme. Dr. Millard visited the Grammar School site, which is the property of the Hawkesbury Benevolent Society and Hospital, the lease of which Dr. Bernard Keenan has offered to surrender for a consideration of £500. This is a block of over 12 acres, about two miles from the centre of Windsor. He considered its distance from town a fatal objection. As regarded the proposal to use the "gravel pits" site, Dr. Millard pointed out that the highest point there was 11ft. under water during the 1867 flood. He favoured a site on Crown lands, on the southern side of the railway line. Here about 10 acres could be obtained, with a slight north-easterly slope. He recommended that the committee take this site into consideration, as the best obtainable, if the present site was to be abandoned, as recommended by him. If, however, the committee decided to adhere to the present site, he considered the only satisfactory course would be to abolish all the existing buildings, with the exception of, perhaps, the matron's cottage, and build afresh, and, at the same time, purchase the adjoining piece of ground now used as a vegetable garden in connection with the institution.

Richmond Crèche, Victoria.—The annual report of the Richmond Crèche Society shows that the children's attendances for the year numbered 4339, while the grand total since the inception of the crèche in 1892 amounts to 64,713. The health of the children, according to the report of the medical officer (Dr. Macgillivuddy), was good. The hon. secretary expresses thanks to all who assisted by donations in kind and money, special mention being made of the efforts of the friendly societies, which had, by means of a carnival, raised the sum of £119 towards the building fund. Other contributions mentioned were:—Richmond council, £50; Felton bequest, £25; Richmond Caledonian Society, £24; Lady Northcote, £15; Richmond racecourse (collection), £11; Mr. John Danks, £5. The balance-sheet showed the receipts for the year as £195, and a credit balance of £22. The report of the hon. treasurer (Cr. G. Adams) stated that the sum of £497 had been paid into the bank to credit of the building fund. The question of the site for the new building was discussed at the annual meeting, and it was decided to leave the selection in the hands of the officers and the trustees of the fund, with whom the Mayor, Mr. G. H. Bennett, M.L.A., and Cr. Adams will act in conjunction. The retiring office bearers were unanimously re-elected, and the Mayor, in closing the meeting, said he hoped that before the next annual gathering they would have a building of their own to meet in. The £500 promised by the Premier will be available as soon as the site is selected, and the committee is prepared to commence building operations.

Newcastle Hospital, N.S.W.—The new administration wing of the Newcastle general hospital, comprising kitchen and servants' quarters, was publicly opened on July 15th. The new building is at the back of the hospital, and was paid for out of a Government grant, and cost £2995. The servants' quarters comprise two sections, there being nine bedrooms. The kitchen embraces kitchen, scullery, serving-room, male, servants' dining-room, and two storerooms. The kitchen proper is fitted with all the latest appliances, and is lined with opal tiles to a height of 12 ft. The

floors are all cemented, and covered with ironite. The foundations of the new building proved very costly, six piers of concrete 20 ft. deep and 4 ft. across having to be put down, and the whole covered with a cement bed 18 in. deep. The furnishings for the new quarters are being bought by public subscriptions.

MEDICAL NOTES.

Charitable Donations and Bequests.—The trustees of the late Mr. George Adams have donated £5 5s to the funds of the Victorian Convalescent Home, Tasmania.

Friendly Societies' Subvention.—At a smoke concert under the auspices of the Pride of Lithgow Lodge, I.O.O.F., the Grand Secretary, Bro. G. T. Clark, referring to the subvention scheme proposed by the late Premier, expressed strong opposition to any State assistance, which he thought would result in pauperising the societies in Australia. They had a million pounds accumulated funds amongst all the societies, and they should be able to give their aged and indigent members all the help they required. He spoke against the proposal of the British Medical Association to exclude from friendly society medical benefits all persons in receipt of an income exceeding £200 a year. He was in favour of advanced legislation to enable friendly societies to initiate schemes for providing annuities and superannuation allowances to members upwards of 60 years of age, and also to enable them to invest their funds in building homes for aged and indigent members.

Sydney Hospital Saturday.—The annual meeting in connection with the Hospital Saturday Fund was held on July 27th. The report referred to the fact that the movement did not mean merely a collection on one day of the year, but a constant effort to obtain funds for the medical charities. The amount—£6843—received for the year ended May 31st, 1908, was a record, being £1072 8s 5d over the previous record in 1897, and the cost of collection was only 7·68 per cent. The indoor collections were:—Industrial, £1741 12s 1d; increase, £329 11s; household, £216 7s; decrease, £23 0s 11d. Outdoor, £4648 9s 3d; increase, £870 18s 10d. Subscriptions, £122 12s; increase, £11 3s 1d. Interest, £34 9s 7d; increase, £3 9s 11d. Entertainments, £80 7s 3d. Expenses were £526 4s, an increase of £91 8s 5d. Sir Harry Rawson, who moved the adoption of the report, congratulated the directors upon the record established by the last collection. It was pleasing to see the increase in the amount received from wage-earners. The total number of these wage-earners in the metropolitan area was 52,605, and their earnings for 1906 amounted to £3,717,797. Did they contribute only one penny per week each to the fund, which really benefited them more than any other section, the amount derived from that one source would be £11,230, which would render much extra work possible. This year 28 institutions had benefited, as against eight when the movement was started in 1894. This increase testified to the way in which the directors had managed things, and the grand support received from the people of Sydney. Cheques for the various amounts allotted were then distributed to the institutions participating.

A few months ago the Health Department of New Zealand secured a supply of the new remedy, Nasten B, for leprosy, and it has been used on two patients quarantined on an island near Lyttelton. The

department now reports that a great improvement is apparent in the condition of both patients, and one of them is making splendid progress.

The West Australian Government Statistician's figures indicate for the month of June an increase of population of 983, while in the last quarter the gain was 3173. The births registered during June numbered 701 (382 males and 319 females), and the deaths 233 (141 males and 92 females). The estimated population at the end of last month was thus 269,299—made up of 157,279 males and 111,950 females.

PERSONAL ITEMS.

Dr. J. Johnston, who had discharged the duties of health officer to the municipality of Williamstown, Victoria, for several years, was tendered a complimentary smoke social on July 16th, in recognition of services rendered to the town, the occasion marking the recipient's acceptance of an appointment recently under the Board of Public Health.

Dr. Cummings, late of Evandale, Tasmania, has succeeded to Dr. W. G. C. Clark's practice at Franklin, Tasmania.

Dr. Wm. G. C. Clark, of Franklin, Tasmania, was recently entertained at a social on his leaving the town.

Dr. R. G. McLay has left Hopetown, Victoria; Dr. Ghandy having purchased his practice.

Dr. H. P. Blaney, on the eve of his departure from the Gulgong district, N.S.W., was presented with a gold watch and chain and an illuminated address.

Dr. W. B. Heyward, late house surgeon at the Launceston General Hospital, Tasmania, has left for Melbourne, and he is shortly proceeding to China.

Mr. Hugh Poate has obtained the diplomas of M.R.C.S. and L.R.C.P., London. Mr. Poate secured his degree at the Sydney University, and won the John Harris scholarship with courses. He was resident surgeon at the Prince Alfred Hospital, Sydney, before going to London. On his return Dr. Poate will commence the practice of his profession in Sydney.

Dr. J. B. Thomson, of the Arrow Hospital, Dunedin, N.Z., is making a tour of the South Sea Islands. Dr. Withers will act as his *locum tenens*.

Dr. Gregg has left Alexandra, N.Z., for England, where he intends entering the West London Hospital to continue his studies. He will be absent about six months, and Dr. Patrick, of Wellington, will act as *locum tenens*.

Dr. R. W. Young has disposed of his practice at Milton, N.S.W., and is doing *locum tenens* work in a suburb of Sydney for six months.

W. A. Fairclough, M.B., Ch.M., M.R.C.S., L.R.C.P., an old Christchurch (N.Z.) High School boy, has been appointed house physician to the Evelina Children's Hospital, London, after being several years at the Royal Westminster Ophthalmic Hospital.

Surgeon Lieutenant-Colonel Walter Thomas, M.B., has resigned his position on the New Zealand Medical Corps.

Dr. E. W. Parry has commenced practice in Brisbane in conjunction with Dr. Brockway.

Dr. G. A. Buchanan was entertained in the Town Hall, Nyngan, by residents prior to departure for Goulburn.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Hurst, Dr. George, to be hon. medical officer of the Granville Electorate Cottage Hospital, Auburn.
Harris, Dr. Harry, to be Medical Superintendent at the Newcastle Hospital, *vice* Dr. H. M. Moran.
Tidswell, Frank, M.B., Ch.M., D.P.H., to be Principal Assistant Medical Officer and Microbiologist to the Board of Health, as Director.
Willis, Dr. C. S., to be Assistant Medical Officer of the Government Department of Public Health, *vice* Dr. R. J. Millard, promoted.
Mrs. Marie Stewart, Muller and Coen to be Honorary Medical Officers of the Lismore Hospital.

VICTORIA.

Henry, Louis, M.D., L.R.C.P., to be Hon. Physician to in-patients at the Alfred Hospital, Melbourne.
Dr. Kennedy, Dr. Marwood, Dr. McCallum and Dr. Newman to be members of the Hon. Medical Staff of the Geelong Hospital.

NEW ZEALAND.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz.:—

Todd, William, M.D., for the district of Pahiatua.
Fearless, Walter Hugh, L.R.C.P., L.R.C.S. (Edin.), for the district of Waimea South.
Sampson, Dr., of Dunedin, to be House Surgeon at the Gisborne Hospital.
Moore, Stuart Alexander, to be Captain, New Zealand Medical Corps, and Surgeon-Captain in the local field ambulance, New Zealand Medical Corps.

QUEENSLAND.

Booth-Clarkson, J., L.R.C.P., L.R.C.S. (Edin.), D.P.H. (Cantab.), D.T.M.H. (Cantab.), to be Government Medical and Health Officer, Ayr, and Medical Officer of Health, Ayr Shire Council, North Queensland.

TASMANIA.

Cummings, Harold L., M.R.C.S., to be Port Health Officer at Port Huon and Hospital Bay.
Henty, Dr. De Witt, to be Officer of Health for the Municipality of Penguin.
Smellie, Dr. William, to be Port Health Officer for Ulverstone, *vice* Dr. W. J. A. Walker, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:—

VICTORIA.

Hennessy, Thomas James, L.R.C.S. (Irel.), 1880, L.K.Q.C.P. (Irel.), 1882.

NEW SOUTH WALES.

Harris, Henry, J.P., M.B., Ch.M. (Syd.), 1908.
O'Gorman, Chas., M.B., L.S., 1876, M.D., M.S., 1882 (Univ. Dublin).
Heydon, Geo. Aloysius Makinson, M.B., Ch.M. (Syd.), 1908.
Rutherford, Constance Muriel, M.B. (Syd.), 1908.
Butler, Arthur Graham, M.B., 1899, Bac. Surg., 1897 (Univ. Camb.).
Williams, Ralph Osmund, M.B., Bac. Surg., 1905, M.D., 1907 (Univ. London).
Park, Charles Leslie, M.B., 1907, Bac. Surg., 1908 (Univ. Melb.).
Sapsford, Clinton Pelham, M.B., Ch.M., 1906 (Syd.).
Delmege, Louis Edward, L.R.C.S. (Irel.), 1877, L.R.C.P. (Edin.), 1879.
Hunter, James, M.B., Bac. Surg., 1905 (Univ. Glasgow.)

Charge of Manslaughter against a Masseuse.

—A masseuse, who conducted the Electro-medical Institute at Kalgoorlie, has been arrested at Perth on a charge of the manslaughter of a woman named Snoll. Mrs. Snoll died from syncope, consequent on intestinal trouble, in the electro-medical institute, after seven weeks' treatment. At the inquest the jury condemned the ignorance shown by the masseuse, and added a rider that the police should suppress such institutes as that she conducted. Accused has been remanded to Kalgoorlie, bail being allowed in two sureties of £250.

BIRTHS AND DEATHS

BIRTHS.

- BROWN.**—July 27, at Ipawich, Queensland, the wife of Dr. E. Elmalie Brown—a daughter.
- CHAPMAN.**—July 23rd, at Maranoa, Muston-street, Moaman, Sydney, the wife of H. G. Chapman, M.D.—a son.
- HONE.**—August 7th, at the Semaphore, S.A., the wife of Dr. F. S. Hone—a daughter.
- LETCHER.**—July 18th, at Cobar, New South Wales, the wife of Dr. H. R. Letcher—a daughter.
- LAURIE.**—August 7th, at Hampton-road, Hampton, Victoria, to Dr. and Mrs. W. Spalding Laurie—a son.
- LIPSCOMB.**—July 18th, 1908, at "Woolton," Leichhardt, Sydney, the wife of T. W. Lipscomb, M.B., Ch.M.—a son.
- LITCHFIELD.**—July 4th, at 216 Glebe-road, Sydney, the wife of Dr. W. F. Litchfield—a daughter.
- SMITH.**—June 30th, 1908, at Lister, Rosebank-street, Darlinghurst, Sydney, the wife of Dr. Eric McLeod Smith, of Berrawarra—a son.

DEATHS.

- BROCK.**—July 18th, at his residence, Kilmore, Victoria, Edward Brock, M.R.C.S.E., late assistant surgeon of the First Royal Regiment, aged 74 years.
- FREYER.**—August 11th, at her late residence, Hastings, Orange, Alma Madeline (Popsy), dearly beloved wife of Dr. J. K. Freyer, aged 34 years.
- LITCHFIELD.**—July 21st, at Glebe-road, Sydney, the infant daughter of Dr. and Mrs. Litchfield.
- MACINERNEY.**—July 22nd, at his residence, "Blakemount," Brunswick-street, Fitzroy, Victoria, James Richard MacInerney, M.D.
- MACNISH.**—July 31st, suddenly at her residence, Gurner-street, Paddington, Eliza, widow of the late James Macnish, M.D.
- MARKS.**—July 31st, at Wickham-terrace, Brisbane, Elizabeth Gray, the wife of C. F. Marks, M.D.
- MUNRO.**—July 24th, 1908, suddenly, at his residence, Forest House, Bridge-road, Forest Lodge, Sydney, Dr. W. J. Munro, aged 46 years.
- O'HARA.**—August 2nd, 1908, at Hawea, Bayswater-road, Darlinghurst, Sydney, Janet O'Hara, beloved mother of Dr. Acland O'Hara, aged 85 years.
- SEABROOK.**—August 1st, at Broken Hill, N.S.W., Thomas Edward Fraser Seabrook, M.D., aged 72 years.

BOOKS RECEIVED.

- The following two books have been received from Messrs. Rebbman, Ltd.:—
1. The Theory of Ions: A Consideration of its place in Biology and Therapeutics. By William Tibbles, M.D. Price, 2s 6d net.
 2. Electric Ions and their use in Medicine. By Prof. Stephane Leduc; translated by R. W. MacKenna, M.B., Ch.B. Price, 2s 6d net.
- Encyclopædia and Dictionary of Medicine and Surgery*, vol. viii., *Physiology—Rhinalia*. Edinburgh and London: Wm. Green & Sons.
- Hay-fever, Hay-asthma: Its Causes, Diagnoses and Treatment*. By William Lloyd, F.R.C.S., F.R.S.M. Second edition. Price, 4s 6d net. London, 7 Wigmore-street, Cavendish-square: Mr. Hy. J. Glaisher. 1908.
- Applied Anatomy, Surgical, Medical and Operative*. By John McLachlan, M.D., F.R.C.S. (Eng.). Revised and largely re-written. By A. A. Scot Skirving, C.M.G., F.R.C.S. (Ed.). Fourth edition, in two volumes. Edinburgh: E. & S. Livingstone, 15 Teviot-place. Price, 18s net.
- Points of Practice in Maladies of the Heart*. By James Sawyer, Knt., M.D. (Lond.), F.R.C.P., F.R.S. Birmingham: Cornish Bros., Ltd.
- Maternity Nurses' Charts and Case Book*. By Gertrude C. Marks. London: Baillière, Tindall & Cox. Price, 1s net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:

Messrs. Lemcke and Buchner, New York; Messrs. Warner and Webster, Melbourne; Dr. W. C. Howie, Pambula, N.S.W.; Mr. L. Bruck, Sydney; Mr. G. T. Taylor, Hobart; Miss Nasmith, Burwood; Dr. R. A. Parker, Boulder, W.A.; Reuter's Telegram Co., Ltd., Melbourne; Dr. G. H. Rowlands, New Zealand; Dr. H. M. Gore, New Zealand; Messrs. Baillière, Tindall & Cox, London; Dr. H. Critchley Hinder, Sydney; Dr. C. Reissmann, Adelaide; G. H. Knibbs, Esq., Commonwealth Statistician, Melbourne; South British Insurance Co., Sydney; Dr. Cribb, Milthorpe, N.S.W.; Dr. E. Robertson, Auckland, N.Z.; Messrs. Thomson Bros., Brisbane; Dr. B. B. Ham, Brisbane; Dr. Henry

Laurie, S. Melbourne; Dr. E. G. Stokes, Sydney; Dr. Walter Spencer, Sydney; Mr. G. B. Murrell, Sydney; Messrs. Angus and Robertson, Sydney; Dr. Flashman, Sydney; The Denver Chemical Mfg. Co., Sydney; Messrs. H. A. Rose & Co., Sydney; Messrs. McLennan & Son, Sydney; Messrs. Burroughs, Wellcome and Co., Sydney; Messrs. Bickford & Co., Adelaide; Messrs. Beard Watson, Sydney; Messrs. Parke Davis & Co., Sydney; Messrs. Felton Grimwade & Co., Melbourne; Dr. Guthrie Rankin, London; Dr. A. E. Marten, Perth, W.A.; Hon. Dr. G. H. Butler, Hobart; Dr. E. H. M. Stephen, Sydney; Messrs. Denyer Bros., Sydney; Dr. J. Booth-Clarkson, Ayr, North Queensland; Dr. W. Moore, Melbourne; Dr. W. J. S. McKay, Sydney; Dr. F. Antill Pockley, Sydney; Dr. F. G. Griffiths, Sydney; Dr. H. A. Wilson, Philadelphia, U.S.A.; Dr. F. B. Eaton, Portland, Oregon, U.S.A.; M. E. Merck, Darmstadt.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

MISS STODDART, Cert. Member A.M.A.—**BOWRAL CENTRE.**—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 324.

SYDNEY, SEPTEMBER 21st, 1908.

VOL. XXVII., No. 9.

MENTAL DISEASES FROM A SOCIOLOGICAL POINT OF VIEW.

By Andrew Davidson, M.D., Medical Superintendent Hospital for Insane, Callan Park, Sydney.

WHEN I was asked to deliver an address before your Society I felt that an honour had been conferred upon me; but when I came to consider the matter, I felt that in a weak moment I had accepted more than I was justified in undertaking.

I had, first of all, to give your secretary a title for my paper, and was guided in coming to a decision by the fact that as you had asked me you desired to know something of the subject it has been my lot to devote my time to. I therefore said "Mental Diseases." The subject, however, though it has many fascinations, is so different in many of its aspects from general medicine that I felt I had better get at the foundation-stone of the fabric, and deal with the causes and prevention, selecting those causes which are of the greatest importance to the general public. I also will refer to places for the treatment of early cases, drawing attention to the present state of the hospitals for the insane, and the imperceptible changes which are gradually taking place in the early treatment of mental diseases. I therefore said "Mental Diseases from a Sociological Point of View."

It would take too long, and would really be the subject of a special address to speak of the historical side of the subject, even though one were to date it from one's own experience, for during this comparatively short time—some 14 years—many changes have occurred, both as to the ideas of causation and as to the methods of treatment of mental diseases. Public attention has been directed, and is being directed, more and more to the subject, and statistics which have been drawn up show the gradual increase of insanity in relation to population. Statistics are data which can be played with and different interpretations drawn therefrom; still the figures which have been published in the Year Book of the Commonwealth are particularly interesting and worthy of being referred to. In New South Wales from 1901 to 1906 the number of insane persons per 1000 of population has risen from 3.24 to 3.60, and the total number from 4475 to 5497. A similar increase ap-

plies to all the States, with the exception of South Australia, where the proportion per 1000 of population has been lowered from 2.75 to 2.59. The number of patients in 1901 was 988, and in 1906, 994. From the returns of the Inspector-General of New South Wales, it is found that whilst in 1876 the admissions for the year were only 293, in 1906 they had mounted to 909; and while in 1876 the number remaining in the hospitals was 1605, it was 5525 on December 31st, 1906, and 5692 on December 31st, 1907. These figures show a very decided increase in the numbers of the insane—1 in 330 in 1898 to 1 in 277 in 1906—and they have gone up steadily during the last eight years till last year, when the number was 1 in 280. It is suggested that the increase in the numbers of patients in hospitals for the insane must be accounted for by (firstly) general increase in the population of the State, and (secondly) by the accumulation of patients in hospitals, who have not recovered from the previous year's admissions.

One now wishes to speak of the cause of insanity, not of all the causes, but of three which strike one to be of the greatest importance and most worthy of attention. Last year, in the causation tables at Callan Park, the three main causes (numerically) were:—(a) Intemperance in drink, (b) heredity, and (c) domestic trouble, including loss of relatives; but one may safely say that heredity and drink play a large part in this, the third cause. Besides these three causes, venereal diseases, fevers, epilepsy, phthisis, and other bodily diseases, the changes which take place at the well-known epochs of puberty adolescence change of life and senility, and worry and mental anxiety, have all been ascertained to be a cause of mental disease in many cases. It is impossible to discuss all of these, and it is therefore advisable to select the three one considers the most important—heredity, alcohol, and syphilis—which, though it has not been prominent from its numerical relationship to the other causes, as shown in the causation table, is of great importance, as one will try to prove.

Heredity is the basis on which many diseases are built, and nervous diseases are no exception to the rule. The nervous organs are the most complex of all organs, and as

time advances they become even more so, and the more complex the system is the more readily may some little defect upset the whole mechanism. Thomson, in his book on "Heredity," states, as regards the nervous system:—"In regard to this very difficult question we wish to make three remarks: (1) In many cases what the facts suggest is the inheritance of a general, not a specific, predisposition; (2) on the other hand, there are some instances of apparently very precise and specific inheritance, as if some very definite 'blot on the brain' was transmitted from generation to generation; and (3) that there seems to be little warrant for believing in the transmission of a nervous disease of exogenous origin that is one traceable to some external shock or wound." Ziegler also states: "I can find no facts which prove that an acquired disorder of the nervous system can be transmitted to the offspring."

Even though the figures which were ascertained with regard to heredity were fewer than those in regard to alcohol, it is the more important; for heredity and alcohol are frequently combined, heredity being often the basis for the latter. One has always found it very difficult to obtain definite and reliable information as to family history of patients admitted into hospitals for the insane. Over and over again it is found that when a patient is admitted the statement of particulars, accompanying the admission papers, will contain, under the heading "any insane relations—none," and yet, on cross-examination of the patient or his relatives, very definite history of heredity will be obtained. Sometimes, also, when the particulars are given by the father, the family history on the mother's side will be outlined, but nothing will be said as to his own kin, and it is only when the mother is asked as to her husband's history that the other side of the picture is shown. In 1907 there were 365 admissions into Callan Park, and a history of heredity was ascertained in 62 of these admissions. Heredity, as a rule, affected only one side, but in some cases both sides of the family, and in one or two cases practically the whole family seemed to be insane, as in one case—two sisters and one brother were insane, and one brother committed suicide. It is rather remarkable, but there seems to be an affinity between families with a tendency to nervous diseases. This was shown in a very exaggerated form very recently, when the daughter of one of the members of this family asked for an opinion as to the advisability of her marriage with

the son of a male patient (a case of general paralysis of the insane), whose wife's sister was also a patient at the same time. One has also to bear in mind that in ascertaining the influence of heredity in mental diseases in a family, one must not overlook the fact that a history of epilepsy, idiocy, eccentricity, neurasthenia, etc., may exist, and one must also remember that though it may be found that the patient's father and mother were healthy, the heredity taint may be further back, and that the grand-parents may have been insane, or that heredity may have been shown in a collateral branch—patient's uncles or aunts. The heredity tendency may also alternate, one variety replacing another. While speaking of heredity it may be interesting to observe that there may be an insanity of association (*folie à deux*) where both husband and wife have been affected, and several examples of this have been noticed, more especially in 1907, when six cases were admitted; in some the husband and wife were admitted to Callan Park; in others, the wife came to Callan Park, the husband to Gladesville, or *vice versa*. Some of these patients had well marked hereditary history—one in particular had both mother and sisters insane, and mother had a history of alcoholic excess for four generations, accompanying a steady down grade in the social scale; so that one feels, in cases where both husband and wife become insane, the hereditary influence and the affinity between such families were strong factors. As we have seen, heredity is a subject which people are exceedingly unwilling to discuss, but sometimes a medical man may be asked for an opinion, and the rules which have been suggested by Dr. Chas. Williams are well worth bearing in mind:—

1. A person of either sex should on no account contract marriage with a person of so-called weak intellect, or one who has ever been certified as insane.

2. Two persons should never marry where there is a family history of insanity on both sides—that is to say, where the father, mother, or near relative of both is or has been insane.

3. Even if there is a family history of insanity only on the side of one of the parties, it is exceedingly unwise to do so, for the risk is very great indeed as regards the children of such marriage, and if the taint is on the wife's side there is some danger should she become a mother of her falling a victim to puerperal insanity.

4. First cousins should seldom, if ever, marry, for should there happen to be the least neurotic taint in the stock from which they are descended the result as regards the progeny is almost sure to be disastrous.

5. No man or woman should ever marry any person of the opposite sex who suffers from chronic epilepsy, even if the "fits" are of the mild type.

Dr. Williams further states:—"If these rules were only observed, all those of experience in insanity will agree with me in saying that the good effects would be distinctly visible in the next 50 years, and that if they only continued to be observed the close of this century would yield very different statistical results as to lunacy than are seen in the Commissioners' returns to-day. Everything possible, then, should be done to make these facts known, and to caution people as to the dangers of inter-marriage with tainted families. If young men and women still persist in such a foolhardy course after being thus warned, it is difficult to see what can be done, unless statesmen are bold enough to intervene and by declaring such marriages illegal, and the children therefrom illegitimate, deter would-be offenders, and thus check in some measure the mischief."

Besides being able to give an opinion when asked, a family physician may frequently, from the knowledge he has gained from attendance on a patient and his relatives, be able to make suggestions in a manner which allows them to be accepted and adopted as if they came from the relatives' own minds. In this way a doctor may very often stave off a trouble which to his experienced eye is looming in the distance.

One other subject, though it may bear only indirectly upon heredity, has a great influence in moulding the future of the child and of the man. I refer to a matter of great importance, and though just now it is in its very infancy, yet as years roll on it is bound to become a strong factor in the guidance of childhood's days—viz., medical inspection of school children. This, I consider, applies not only to their bodily health, but to the opportunities which the examining doctor has when he is aware of the history of the ancestors of the child, as well as the child's present surroundings, to be able to form an opinion as to the child's mental condition, and to direct the teacher the nature and extent of the work the child is capable of undertaking while at school, and, what is still more important, may guide parents as to the trade, occupation

or profession for which the child is most fitted. Occasionally one sees patients who have been bright and intelligent and precocious at school, and whose teacher has thought that they are the best pupils he has in the school. They are taken special interest in, more work is given them, and their aptitude to learn and grasp everything quickly assists the teacher to keep the fire aglow. The stage of puberty arrives, and the high-strung nervous condition is thrown out of gear; the child becomes restless and sleepless at night, a quiet, childlike demeanor is replaced by a self-possessed, over-confident, arrogant attitude, which is shown by overbearing conduct and mode of dress. Soon the mental balance gives way with grotesque ideas, loss of energy and zeal for work, and a self-centred interest. Slowly the general process of devolution takes place and a state of imbecility results.

Hamilton, on "Heredity," serves this picture up from the pathological point of view in the words: "The germ track in the ontogeny of the nerve cells is very short, far shorter than in the case of many other cells throughout the body, and hence a state of maturity is reached at a comparatively early period, with an inclination to premature decay."

The examination of school children in a thorough way might check some of these conditions in the bud. The subject of examination is a big and extensive one, and little good can be obtained from casual methods. It must be thorough and complete, a full staff must be obtained, the results ascertained must not be "pigeon-holed," but put into practical use. Money will have to be spent, but as far as the State is concerned, it is better to pay for the rescue of a child who will grow up and may repay the State than to have to spend large sums of money in the maintenance of benevolent asylums and hospitals for the insane, some of whose inhabitants who came as adolescents to stay until old men, might have been working for their livelihood. A paragraph recently read bears this out markedly:—"An inmate of the Beechworth Asylum, Victoria, died recently, and at the inquest it was stated that he was 78 years of age and that he had been 66 years in the hospitals for the insane."

Alcohol.—Some authorities have stated that the difference between a person who will become insane and a person who will not become insane is one entirely of hereditary

predisposition, while others assert that insanity is no different from other bodily diseases, and is caused solely by intoxication either from disturbances of metabolism or some bacillary infection. Both statements, if worked into one another, are true; but the scientist who is narrow-minded and pledges his faith to one or other alone must sooner or later find his investigations surrounded with difficulties. Taking for granted that we have to deal with a highly-balanced organ, with the characters of ages hanging to it, and, like a well-set fire, only requiring the match to set it ablaze, we find that many poisons are ready to take the place of the match, and that, as far as the nervous system is concerned, alcohol is one of the most virulent of these poisons.

Thomson, in his book on "Heredity," states "that the alcoholic habit is prejudicial to the race, not merely through custom and tradition, not merely by affecting maternity, but directly through inheritance. There are so many cases of unhealthy, insane, and criminal persons among the offspring of drunkards that all possibility of coincidence is excluded."

In 1907 it was found that of 365 cases admitted to Callan Park the history of intemperance was ascertained in 117 instances, and that of this number 78 were said to be caused directly by alcohol, while in 39 alcohol was said to be the predisposing cause—where, for example, a person had become insane through habits of relatives who had left the household to fight for itself, and sometimes almost to starve, or who came home in the middle of the night drunk and irresponsible and turned the family into the street. Drink as a direct cause of insanity has been a subject of much dispute, some stating that excessive drinking is but a symptom of the underlying mental disease; but though this undoubtedly holds good in certain diseases, such as the early stages of general paralysis and the congenitally mentally afflicted, yet in the majority of cases alcohol is the exciting cause. It is a well-known fact that though alcohol acts more readily on the nervous than on any other tissues, and that for years a person may drink moderately with no seeming bad effects and for some time with comparatively no change in liver, kidneys and stomach, and yet when some inter-current disease (*e.g.*, pneumonia) attacks the individual it will be found that his resistive powers are of the weakest order. Stress and business worry may also bring into

evidence this lack of stamina, and though at first he may try to fight against this weakness by taking increasing doses of alcohol, and for a time may succeed in carrying out the stress of work, still the end comes with a crash, and with the crash comes all the mental symptoms of acute delirious mania. Cases like these are admitted into the hospitals for the insane, but they form a small percentage of the hospital population, with alcohol as the cause, for if the histories of chronic delusional and recurrent cases are sifted, alcohol will be found to form the initial cause in a very large proportion.

Mott well states: "Often in the cases of so-called recurrent mania I have found that the patient was sent to prison for several short terms, and it was then ascertained that he or she was insane or mentally deficient or epileptic, and sent to an asylum, from which institution they are too often discharged, to be again re-admitted, the re-admissions being generally brought about by some anti-social act, the result of intemperance. All these cases help to swell both the statistics of cures and cases due to alcohol, whereas really they are degenerates or congenitally feeble-minded. They may be feeble-minded because they lack moral sense and higher control, or they may be intellectually deficient and therefore unable to earn an honest living. Often there is a lack of moral sense combined with intellectual deficiency, and not infrequently epilepsy in its major or minor form."

Much has been written of late as to the relation of alcohol to crime, and Sullivan in his book on "Alcoholism" states that 20 per cent. of suicides are attributable to intemperance; and 60 per cent. of the graver homicidal offences and 82 per cent. of assaults can be also thus attributable. In nearly all the cases of the former class and in four-fifths of the minor offences the intoxication had attained a fair degree of chronicity. It has, too, been said by many public men connected with the administration of justice that if water replaced alcohol the gaols would be empty, and what holds good for crime holds good for mental diseases. One unfortunate thing, as far as alcoholics are concerned, is that the trouble does not end with the individual himself, but his offspring have also to be taken into consideration, when the evils of excessive alcoholism are being discussed. Demme traced the history of the offspring of ten sober families, and in ten families where one or both parents suffered from chronic

alcoholism. The sober families had in all 61 children, of whom seven died in infancy, three were mentally deficient, two were deformed, and 50 were normal. The alcoholic families were divided by Demm into three groups. In the first, made up of six families, there was parental alcoholism in at least two generations; of the 20 children in these families, 15 died at birth or in early infancy, three were deformed, three were imbecile, two had defective speech, two were dwarfish, three suffered from convulsions, and only two were normal. In the second group, comprising three families, in which chronic alcoholism in the father was the only taint, the number of children was 20, and of these seven died in infancy, two were weak-minded, two were choreic, one was dwarfish, one was epileptic, and seven were normal. Finally, in the third division, which comprised only one family, both parents were alcoholic, and of the six children none were normal, three died of convulsions within six months of birth, one was imbecile, one was dwarfish, and one epileptic—i.e., the percentage of normal children in sober families was 81.9, while in alcoholic families it was only 19.5.

Sutherland, in a recent article in the *Journal of Mental Science*, has stated: "It has to be admitted that dipsomaniacs, a large class, if they do not breed true to themselves, breed something akin, viz.: Neurotic offspring which may eventuate in one of the many neuroses, in actual insanity, or in the true 'drink crave,' which, in spite of the views of sceptical critics, is as real as the drink itself, or other mania."

Amongst the admissions to hospitals for the insane there is always a fairly large number of cases admitted whilst passing through the stages of puberty and adolescence, cases now called "dementia precox"; 27 out of 365 admissions were received last year at Callan Park. In these, though the metabolic changes of puberty are said to be the exciting cause, yet one frequently finds that there is a record that one or other of the parents has a history of excessive drinking. If the father be at fault, the mother has been left in dire distress when pregnant, and whilst nursing the child; while if the mother be the sinner, the trouble is even worse. If, therefore, the vicious indulgence of an unnatural craving for drink may cause the greatest poverty, misery and despair, one must only say that the person is anti-social, a moral imbecile, with weakened and degenerate will,

liable at any time to commit a crime. It is desirable that such persons, in all classes of society, should be placed under control, whether they desire it or not. Parliaments in all countries have passed Acts for the control and sale of alcohol, and for the cure of those who have become its victims, yet it is felt that in passing these Acts there have been many causes which have exercised a great restraining influence upon the hands of legislators. Probably the most prominent factor is that of the ample revenue derivable from its manufacture and sale. New South Wales has recently had an Act passed, but from it so far little good has arisen, for though it is in force, it is not in force. So far legislators have touched only the fringe and have not actually got at the root of the trouble. It has been said that legislation can never do so, and that the only means by which the evils attendant upon the excessive consumption of alcohol can be stemmed is the education of the people to the evils arising from its persistent use, more especially as nowadays men are better educated and better able to appreciate demonstrated facts. However, human nature is human nature, and I feel it will always hold the helm so long as chronic inebriates, derelicts who are pests to themselves, millstones round the necks of their relatives, dangers to persons and property, the floating population of gaols, benevolent asylums, and a burden to the State, are allowed unrestricted liberty such as they have at present. An excellent feature in regard to this subject is the State Children's Department in New South Wales, which does great good by removing children from their drunken parents, who are unable to care for them; but against this no means are taken as far as parents are concerned, more especially as drunken mothers are recognised as being very fertile, Branthwaite stating that 149 mothers have given birth to 1102 children, i.e., 7.4 to each mother.

Syphilis.—Syphilis, owing to its destructive effects on the brain, must be recognised as one of the chief causes of insanity, but it is only comparatively recently that this result has been arrived at, and chiefly by the establishment of syphilis as the fundamental cause of general paralysis. Syphilis, like alcohol, does not finish its ravages on the person infected, but, like it, is a hereditary disease even unto the third generation, and probably of a much more virulent type. Syphilis and alcohol often go hand in hand, and Mott has

stated that a considerable proportion of women who have died in the asylum with a history of drunkenness show signs of syphilis or inflammation of the ovi-ducts, which in a majority of cases is of venereal origin. The majority of English authorities have sworn allegiance to the syphilitic faith, so also French, German and American authors. Fournier states his position with many arguments, while Kraft Ebing was bold enough to inoculate eight general paralytics with the virus of a typical hard chancre, and after a prolonged period of observation not one of them manifested any syphilitic phenomena—a striking proof that they were immune by an acquired or inherited infection. Exception has been taken to this deduction on account of no control tests having been made at the same time. Syphilis is considered to be a *predisposing* cause of general paralysis, and many *exciting* causes have been stated. Kraft Ebing's well-known statement "Syphilisation and Civilisation" covers much. It has been argued that in countries like China, where syphilis is a very prevalent disease, that cases of general paralysis do not occur, but one must remember that the exciting cause is absent. The same state of matters holds good in England, where general paralysis is very uncommon in quiet country districts, even though syphilis is present, and, on the other hand, is very common in large business centres and seaports. China itself is not exempt, for I have seen in the Far East a Chinaman who had syphilis, and who was an active business man, with branches of his large establishment in several towns separated by long distances—Rangoon, Penang and Singapore—between each town he was frequently travelling. He developed general paralysis of the insane, and passed through all the classical stages. In Callan Park we have had three Chinamen who died of general paralysis, the clinical history being confirmed by post-mortem examination. Recently the bacillus paralyticus of Ford Robertson has been suggested to be the cause of general paralysis of the insane, but the matter is still under discussion, and so far has not been generally accepted. Even though it is accepted as a cause, it is probably the exciting cause, with syphilis as the underlying basis or predisposing cause. Taking as granted that syphilis is the predisposing cause of general paralysis, the following figures must show the somewhat appalling relation syphilis has to the death-rate in hospitals for

the insane. Between the years 1878 and 1907 1167 deaths took place on the male side in Callan Park, and of these, 463 were certified to have died from general paralysis of the insane, a percentage of 39 on the total number of deaths; while on the female side during the same period there were 586 deaths, and of these 51 were certified to have died from general paralysis, a percentage of 8.7. These figures are taken for 30 years, and must show that syphilis, as a factor in the causation of insanity, is very much more widespread than is generally supposed to be the case. Syphilis is an important factor, not only as far as general paralysis is concerned, but cases of insanity occur with gross organic lesions, which sometimes clear up under treatment of iodide and mercury; but though the bodily symptoms may improve there is always more or less a tainted mental condition left. Tabes, like general paralysis, is a legacy of syphilis, and often the two diseases play into each other's hands. Cases of adolescent general paralysis are all, one may safely say, proved to have had a congenitally specific history, so also may cases of idiocy. Syphilis is a contagious disease, and the effects of its ravages so far as the nervous system is concerned have just been referred to, but what means are taken to prevent the spread of this infection? None. Some years ago legislators were persuaded to annul the Contagious Diseases Act and trust to the people's wisdom and honesty. If, at the same time, proper, well-arranged public establishments had been founded, where patients infected with syphilis could be treated, the loss of the Contagious Diseases Act might not have been so much noticed, and good results might have come about. It is mock modesty to try and conceal the iniquities of mankind: they are always there, and always will be there, and to try and cloak them is only adding fuel to the fire. Syphilis should be a notifiable disease, just as are scarlet fever, diphtheria, and typhoid, and the existence of a public establishment for the treatment of syphilis should be known generally, so that the infection might be treated from the beginning, and as thoroughly as possible, not only as far as medicine is concerned, but also as regards advice as to the future history of the infected person, as far as alcohol, marriage, and his general conduct are concerned.

Management of early cases of mental disease.—From what we have just stated it will be evident that much may be done as far as the

prevention of mental disease is concerned. One now wishes to speak about the treatment of cases in which the disease has developed. Even though times have advanced, the greatest difficulties still surround the general practitioner, more especially in the country, who has to treat these cases. The unfortunate feeling of prejudice that exists in the public mind is still present, and relatives hesitate to the very last to give permission for their friends to be sent to hospitals for the insane. In some ways there is a certain amount of reason for this feeling, for the mere fact of sending a patient to a hospital for the insane means the curtailment of his liberty, a point which does not occur in the treatment of other diseases; and there is not only curtailment of liberty but also of the management of the person's affairs, for at the present time all admissions to hospitals for the insane are safeguarded by legislative enactments, and the patient's property is managed from the date of his admission by the Master in Lunacy. In Scotland for many years, and in England recently, though only applicable to certain hospitals for the insane, a clause exists in the Act which allows persons to become voluntary patients, when they have the right of leaving after giving so many days' notice of their wish. Such a clause does not exist in the New South Wales Act, and it is felt that sooner or later such a form of admission will have to be provided for. The advantages of this method are well shown by the results obtained in the Royal Asylum, Gartnavel, Glasgow, as stated in the *British Medical Journal*, 23rd May, 1908: "During the past three years 105 persons sought treatment for mental disease of their own free will. Dr. Oswald has investigated the results of treatment in this series of cases, and has come to the conclusion (1) that the recovery rate of voluntary patients is greater than that of certified patients; (2) that the duration of treatment is shorter; and (3) that it is only in a few instances necessary to resort to certification. Among the voluntary patients the recovery rate was 50 per cent., or almost 10 per cent. higher than among the certified."

At present in New South Wales the large towns have reception houses into which patients are admitted for observation and certification. In Sydney the Reception House passes through its hands in the course of a year a large number of patients, about half of whom are alcoholics. In 1907, 915 were admitted, 406 discharged, and 490 certified and sent to hospitals for the insane.

In the country districts the management of the early insane is a most difficult question, and at present the gaols are used for the observation of mental cases, the person afflicted being sent there charged with being of unsound mind. Recently a paragraph in the *Sydney Morning Herald* was headed, "Prisoner hangs himself," and the information contained in the paragraph was that a man, who was in custody on a charge of being of unsound mind, hanged himself at Beaudesert, Queensland. Comment upon this is unnecessary, for it shows the non-medical way in which cases of mental disease are dealt with. If cases of early insanity could be treated apart from the law, they would not be "labelled" as persons charged with being of unsound mind. Proper accommodation should be established in country hospitals for the treatment of such cases, and one feels that we are coming to a period in the history of mental diseases when this will become general. Even now a hospital has been erected by Dr. Sinclair at the Reception House, Darlinghurst, where 20 male patients may be admitted at their own request, and treated as if in a special hospital for nervous diseases. This ward has only been in operation for a few weeks, and at present it is too early to express any opinion as to its usefulness. Its existence must be known and free use made of it, so that its utility may be fully tested. In two cities, Glasgow in Scotland, and Albany, U.S.A., special additions have been made to general hospitals, where mental cases may be admitted and treated till recovery occurs, or if such is not likely to be possible, certified and sent to the Government hospitals. Attached to these is also an out-patients' department, which is of great value in the subsequent treatment of cases who have been in the hospital, and also of cases who have not been considered suitable for admission to these wards. Another mode of treatment of early cases, which had its origin in Germany, is the establishment of a special hospital of say 100 beds, where cases are admitted and treated as in a general hospital, but which, unlike the two referred to above, is not attached to any other hospital. Some ten years ago a special committee of the London County Council, with Dr. Brudenell-Carter as chairman, issued a report recommending the establishment of such a hospital, but unfortunately public opinion was not far enough advanced, and the report was put in the receptacle where many other valuable suggestions go—the pigeon-hole. The feeling

at the time was strong for a pathological institute, and this carried the day, allowing the clinical aspect to wait. However, within the last few weeks, an eminent mental specialist, Dr. Maudsley, has handed to the London County Council a sum of £30,000, with which to establish such an institution, and this has been accepted by the Council, and the proposal which was suggested some 19 years ago will now be brought into existence. One feels delighted that this has at last been taken in hand, yet at the same time it may be a matter for regret that its establishment is left in the hands of the Council, who already control nine enormous hospitals for the insane, averaging 2000 patients each. A hospital managed by an authority such as this is always more or less bound by red tape, and has never the freedom of action that a new scheme should have. To do good it should throw itself free from the trammels of years of conservatism. One hoped that such a hospital would arise, but that it would be a large special hospital, maintained by voluntary subscriptions, with honorary visiting staff, men of well-established position, and that the spirit of advancement of true science would prevail. In Germany these hospitals are within reach of the medical schools, and are thus the means of readily imparting to students knowledge as to the various stages, phases, and treatment of mental diseases, which cannot be obtained when the hospital is situated out of reach.

It will therefore be seen that the management of the early stages of mental disease is one of the greatest public importance. One hopes that Sydney, though it now has a small hospital in the special ward at the Reception House, will do still more and establish wards, with out-patient department, at the Prince Alfred Hospital, or if the authorities there feel opposed to this, that a small hospital, such as is being built in Melbourne, be erected close to the University. This will mean that individual treatment will be given in each case, all histories will be fully investigated, causes will be definitely ascertained, and treatment will therefore be on a rational basis. It will also be a benefit to the medical student, who will not only be taught by lectures, but will have ample opportunities for examining patients himself and for watching daily the effects of treatment.

So far, we have spoken only of the early stages of this disease, but when the condition becomes well established, and where the

liberty of the person has to be removed and his property guarded, means such as exist now must be taken. One feels that when this is done the patient should not at first be taken to a large barrack-like building, but that he should be treated in some small hospital attached to the larger buildings, where individual care may be given. This is the practice now being adopted in New South Wales, and as you may have seen from recent paragraphs in the daily press practically every hospital for the insane is having attached to it a small, well-equipped building for the treatment of its recently admitted cases. Callan Park in a few months will have four cottages—two for males and two for females, each building having 20 beds; and one feels that the surroundings of the newly admitted cases will be more pleasant than at present, and they will be separated from chronic cases and will have more individual care.

When one has, after some considerable time, ascertained that recovery is improbable, the condition then requires different care. Some cases when admitted may be looked upon as incurable, and for these and for the chronic cases it is necessary that patients should be carefully classified, and that different hospitals should be established, viz.: (1) for the criminal insane; (2) for epileptic insane; (3) for senile insane; (4) for imbeciles and idiots, with school for education of those slightly impaired mentally who might earn a livelihood; (5) for chronic cases who have, in the Biblical sense, become hewers of wood and drawers of water, for whom an agricultural colony is being established at Morisset, on Lake Macquarie. Classification such as this means that patients can be treated according to their respective mental conditions and not be hopelessly huddled together.

One has dealt with mental diseases from many points of view, some of which are still debatable; still one trusts that they will be worthy of your consideration, not only now but in the future. If insanity has so many factors allied to it, what means should be taken to associate these? They are so very different from each other that their management and control are at present either in different hands or in No Man's Land. The control of persons tainted with a history of insanity, the poisoning of the nervous system by alcohol or syphilis, the care of the child whose parents are drunkards, the extermination of the chronic inebriate, the examination

and care of school children, and the care of incipient mental cases in general hospitals, have all to be considered. If the State is to take its citizens under its parental care, which is the present trend of time and tide, some one individual must act *in loco parentis*. This, I consider, will be best obtained by the establishment of a Minister of Public Health and the amalgamation under his care of all the different departments of Public Health and of Education, the management and inspection of all hospitals (general and special), hospitals for the insane, benevolent asylums and inebriate homes. The well-being of a nation is gauged by its standard of health, both in body and mind—“*Mens sana in corpore sano.*”

(Read before the University of Sydney Medical Society.)

ARNETH'S CLASSIFICATION OF THE NEUTROPHILE LEUCOCYTES AND ITS APPLICATION IN PULMONARY TUBERCULOSIS.

By F. G. Griffiths, M.B., Sydney.

ALTHOUGH the work on the neutrophile leucocytes which Joseph Arneth has been doing in von Leube's laboratory at the Julius Hospital in Wurzburg during the last six years has attracted considerable attention throughout Europe, it remains comparatively unknown in English-speaking countries. In English I have seen it noticed twice only—once in the *Epitome of Current Medical Literature in the British Medical Journal* and again in Babcock's “*Diseases of the Lungs.*” Dr. Camac Wilkinson has referred to the subject for the past three years in his lectures on Medicine at the University of Sydney, and it was he who drew my attention to Arneth's two works—*The Neutrophile White Blood Corpuscles in Infectious Diseases and Clinical and Experimental Hæmatological Researches in Consumption.* In these Arneth has recorded the major part of his work, but in addition he has published numerous papers in a variety of medical journals.

For some years the importance of the white blood corpuscles as a protection against certain infective germs has been established, mainly through the researches of Metchnikoff. Again, too, the value of the aid to diagnosis and prognosis which we gain by enumeration of the leucocytes and differentiation of their varieties is well known, even though it be but seldom employed. Arneth's method of blood examination is an elaboration of this differentiation, and depends upon

an analysis of the neutrophile leucocytes in accordance with the forms of their nuclei. I may perhaps remind you that the leucocytes are divided into four main varieties—the polynuclear neutrophiles, the lymphocytes, the eosinophiles, and the basophiles. Arneth's work deals with the first class alone, the polynuclear neutrophile leucocytes; these comprise about 75 per cent. of the whole number of leucocytes. They have two striking morphological characters: first, their finely granular cytoplasm, which takes basic stains not at all and acid stains faintly, so faintly that the cells are generally termed “neutrophiles,” though strictly they are slightly “oxyphile” (hence Kanthak's name for them, “small granular eosinophiles,” eosin being the commonest of the acid dyes); and, second, the varying form of their nucleus, which appears irregular, or even divided into separate parts—hence their names “polymorphonuclear” and “polynuclear.” They are generally referred to shortly as “polymorphs” or “neutrophiles.”

Arneth begins by counting the leucocytes in the usual manner with Thoma's apparatus. The analysis of the neutrophiles he undertakes in thin, dry films stained with Ehrlich's triacid stain. He is very emphatic that Ehrlich's triacid stain should be used; it is specific for the neutrophile granules, and so provided one makes good preparations, there is no risk of mistaking other cells for neutrophiles. As, however, the stain is devised specially for the neutrophile granules and does not stain nuclei intensely, it is often difficult with it to define the parts of the nuclei; for this reason I prefer Jenner's stain, a modification of Romanowski's eosin and methylene blue stain, with which Arneth does not appear to be acquainted. With Jenner's stain I have never found any difficulty in identifying the neutrophiles, for their fine granules, though less clearly defined than is the case with Ehrlich, are still sufficiently clear to make them readily distinguishable from the cytoplasm of the lymphocytes. Jenner's has the great advantage that it gives dark blue, very clearly defined nuclei—a most desirable consideration when using Arneth's method of classification. Again, too, it is easily and quickly used. Therefore I consider it preferable to Ehrlich's. If, however, one strictly follows Arneth's directions and stain with Ehrlich, one must be careful to secure Ehrlich's triacid farbung and not the trifarb-lösung, which is a different preparation, and not at all suited for this work.

Having obtained the specimen of blood, prepared a dry film in the usual way, and stained it with Ehrlich or Jenner, the observer now goes over the film carefully with an oil inversion lens, moving the preparation by hand, or, if he has neglected to acquire the requisite dexterity, by means of a movable stage. The first hundred neutrophiles seen are closely examined, particular notice being paid to the divisions of their nuclei, and are classified as follows:—

Class 1.—Neutrophile leucocytes with one nucleus: if this be smoothly round (ovoid), the cell is a myelocyte. This simple form, however is rare, and the nucleus is almost always complex, that is, more or less indented and irregular.

Class 2.—Neutrophile leucocytes with two nuclear parts; these parts may be simple ovoids or they may be looped.

Class 3.—Neutrophile leucocytes with three nuclear parts.

Class 4.—Neutrophile leucocytes with four nuclear parts.

its usefulness, so that if the proportion of complex cells (classes 3, 4, and 5) is low, the blood is weak and the resistance of the patient defective. He attaches importance to the size also, but into this matter I do not propose to go.

The normal number of leucocytes in peripheral human blood is between 6,000 and 10,000 per c.mm. In pathological conditions the number of leucocytes may vary. If it be high we have a "hyper-leucocytosis," if low a "hypo-leucocytosis" or "leucopenia," if normal a "normo-leucocytosis." Again, the proportion of Arneth's classes 1, 2, 3, 4, 5 of the neutrophiles may vary, apart altogether from any variation in the number of leucocytes. This variation in the relative proportions of Arneth's classes is indicated by prefixing the term "aniso-" to the name which indicates the number of the leucocytes.

Thus, "isonormo-leucocytosis" indicates the condition normal in number of leucocytes and normal in relative proportion of neutro-

TABLE A.

NORMAL AVERAGE NEUTROPHILE BLOOD TABLE.																				
1			2			3					4					5				
M	S	D	O	2L	1O1L	3O	3L	2O1L	2L1O	O	4O	4L	3O1L	3L1O	2O2L	5O	4O1L	3O2L	4O2L	3O3L
—	0.20	5.00	0.27	23.46	11.60	2.27	5.60	16.66	16.40		3.80	0.07	6.40	1.60	4.73	1.00	0.40	0.40	0.07	0.07
	5.2%			35.33%				40.93%					16.6%					1.94%		
	5%			35%				41%					17%					2%		
M, myelocytes ; S, slightly indented ; D, deeply indented ; O, ovoid ; L, looped.																				

M, myelocytes; S, slightly indented; D, deeply indented; O, ovoid; L, looped.

Class 5.—Neutrophile leucocytes with five or more nuclear parts.

In classes 3, 4 and 5 the parts of the nucleus may be ovoid, or looped, or some ovoid and others looped. The result of this classification is generally expressed in tabular form. (See Table A.)

The above table contains the average of observations made by Arneth on 15 healthy adults. The refinement shown in the first line is not usually required. It suffices to give the result shown in line two, which is obtained by adding together the number of cells of the different subdivisions of each class; those who employ Arneth's method should carry in their minds the approximate normal of line three, 5, 35, 41, 17, 2, which shows that the large majority belong to the 2nd and 3rd classes.

Arneth considers, and with good reason, that the more complex the division of the nucleus, the older is the cell, and the greater phile classes. Omitting the "leuco" to

shorten the names we get the following conditions:—

1.—Normocytosis (normal leucocyte count): (a) Isonormocytosis (with normal neutrophile blood table); (b) anisonormocytosis (with pathologically changed neutrophile blood table).

2.—Hypercytosis (increased leucocyte count): (a) Isohypercytosis (with normal neutrophile blood table); (b) anisohypercytosis (with pathologically changed neutrophile blood table).

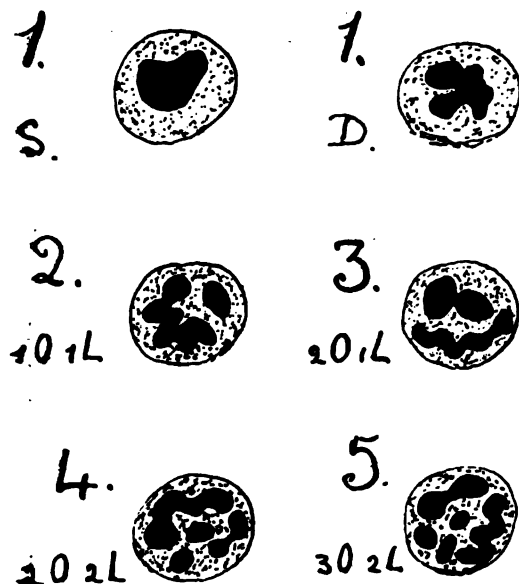
3.—Hypocytosis (decreased leucocyte count): (a) Isohypocytosis (with normal neutrophile blood table); (b) anisohypercytosis (with pathologically changed neutrophile blood table).

The commonest of the abnormal conditions are 1b, 2b, and 3b; 2a and 3a are rare. The change in the relative proportion of the classes may be slight or great, even so great as to lead to a complete reversal.

Arneth has studied these changes in a

number of infectious diseases, *e.g.*, measles, pneumonia, tetanus, erysipelas, diphtheria, typhoid, and has embodied the results in his work already mentioned. I do not intend to deal with them here, but shall pass straight on to a short consideration of the changes which are found in tuberculous persons.

Where the disease is early and the patient free of hectic fever, the changes are slight. We find an isonormocytosis, *i.e.*, normal number of leucocytes and normal neutrophile blood table.



Diagrams illustrating Arneth's 5 Classes of the Neutrophile Leucocytes.

Fever due to tuberculosis does not affect the number of leucocytes, though it alters the neutrophile blood table; it therefore causes an anisonormocytosis, and the greater the severity of the tuberculous process the greater the pathological change in the blood table, *i.e.*, the greater the number of neutrophiles in classes I. and II., and the smaller in classes III., IV., and V.

In most cases of mixed infection a hyperleucocytosis occurs, and the changes in the numbers of Arneth's classes continuing we get an anisohypercytosis.

On the other hand, if improvement takes place there is a tendency to a return to the normal relation between the numbers of cells in Arneth's classes, and this return to the normal, more or less complete, is especially marked in the result of treatment by tuberculin according to Koch's directions.

I. When the affection is rapidly increasing, as in acute miliary tuberculosis, there occurs an anisonormocytosis, *i.e.*, a normal leucocyte count with an abnormal neutrophile blood table, as in the following case, which I quote from Arneth's book, of a patient with pulse of 112 per minute and temperature 102.5° F. : 5/1/04, 1.30 p.m., number of leucocytes per c.mm., 4900; neutrophile classes: 1, 31; 2, 60; 3, 8; 4, 1; 5, 0.

II. In early cases of chronic pulmonary tuberculosis where the patient's health is still good, we get a slight change only, or perhaps even no change (an isonormocytosis).

In one of my own patients I found this condition of the blood:—18/8/06, 9.30 a.m., red cells, 4,560,000 per c.mm.; hæmoglobin, 80 per cent.; corpuscular colour index, 0.88; leucocytes, 4100 per c.mm.; neutrophiles, 60.6 per cent.; lymphocytes, 36; eosinophiles, 1.8; basophiles 1.6, with a neutrophile blood table of 15.5, 36.5, 37, 8, 3, in which you will notice the increase of cells of class 1 is slight only. I propose to refer to this patient later on and to show the effect of tuberculin treatment on the neutrophiles.

The labour entailed in making a blood examination according to Arneth's method is great; it is, however, by no means so great as that entailed in an opsonic estimation, and over the latter it has two great advantages: 1. Arneth's method is direct and *absolute*; its object is to determine one aspect of the state of the patient's blood, and this object it achieves; the resulting table expresses the constitution of the neutrophiles of the patient's blood. The opsonic method is indirect and *relative*; by it we determine not the absolute opsonic power of the blood, but the *ratio* of the opsonic powers of bloods of two persons, or of the blood of one person (the patient) and of the mixed bloods of a number of persons. As we never can be sure that the opsonic power of the standard is really normal, we are measuring our patient's blood by means of a "putty rod," a foot rule of some flexible material which may be a foot long, but again may be for all we know, and often is, ten inches long, 11, 13 or 14. 2. Again, though the proportion of Arneth's classes may vary from time to time, it does so slowly only; the opsonic power varies rapidly and enormously. If you find the Arneth blood table for the neutrophiles one day, you can have a reasonable expectation that it will be about the same the next day.

TABLE B.

III. In less early chronic afebrile pulmonary tuberculosis again we find anisonormocytosis.

Case.	Date.	Hour.	No. of leucocytes per c.mm.	NEUTROPHILE CLASSES.					Remarks.
				1	2	3	4	5	
3	6/11/04	9.15 a.m.	9,300	32	57	10	1	—	
4	1/12/02	12 noon	8,500	6	49	37	8	—	
5	1/12/02	12.30 p.m.	6,600	15	60	23	2	—	
6	7/6 /06	11.30 a.m.	7,900	30.7	46.8	18.9	3.6	—	
7	23/8 /06	10 a.m.	9,300	47	40.4	12.3	0.3	—	

(Cases 3, 4, 5 from Arneth; 6 and 7 observations of the author.)

IV. In chronic pulmonary tuberculosis with moderate fever.

[8	10/11/04	9.15 a.m.	12,500	52	37	10	1	—	Fever to 102. fr. Arneth
9	10/11/04	12.30 p.m.	7,800	32	53	10	5	—	Fev. to 100.5. Arneth.
10	Moderate early case (own observation)—13/11/06, 11.15 a.m.—R.B.C., 4,800,000; hæmoglobin, 90 per cent.; leucocytes, 11,800; neutrophiles, 65.8; lymphocytes, 33.4; eosinophiles, 0.4; basophiles, 0.4. Neutrophile blood table—10, 33, 33.4, 14.3, 3.3.								

V. Late cases of chronic pulmonary tuberculosis with fever, anisohypertosis, or if the fever be due to tuberculosis alone, anisonormocytosis.

*11	16/6 /06	11.30 a.m.	14,400	41.8	43.0	14.0	0.7	0.5	
*12	21/9 /06	11 a.m.	15,200	43	49.5	7.5	—	—	Patient has since died.
13	2/11/06	11 a.m.	16,400	51	40.7	8	0.3	—	Died 4 months later.
14	9/11/06	8.30 a.m.	13,500	25.7	41	29.7	3.3	0.3	Died 2 months later.
15	2/1 /07	10.30 a.m.	9,800	41	45	13.3	0.7	—	Died 6 months later.

These illustrate the law that excessive pathological change in the neutrophile blood table in the direction of decrease of classes 3, 4, 5, is of very grave prognostic import.

VI. Cases illustrating the effect of treatment with tuberculin according to Koch's method.

16	18/8 /06	9.30 a.m.	4,100	15.5	36.5	37	8	3	
	21/8 /07	11.20	6,300	7	35	35	20	3	
17	7/6 /06	11.30 a.m.	7,900	30.7	46.8	18.9	3.6	—	
	23/8 /07	12.15 p.m.	8,300	12	40	35	10	3	
18	25/8 /06	10 a.m.	9,200	47	40.4	12.3	0.3	—	
	31/12/06	abt. 10 a.m.	4,600	26.5	39	27	7.5	—	

These show a lessening of the pathological changes and a tendency towards the normal as a result of treatment with tuberculin. It may be of interest to add that all these patients had doses of tuberculin several thousand times greater than doses which Wright considers beyond the limit of safety. Nevertheless they all increased in weight, in strength, and in feeling, of well-being, and they all coughed and expectorated much less than before treatment. At the end of the treatment their opsonic indices varied from 0.95 to 1.78.

The opsonic index of a patient's blood may be doubled or halved in a couple of hours as the result of food, exercise or emotion, and so you can never know what it is, but only what it was some hours previously, and by the time your observation is completed it may be something very different.

The aged Ernst Ziegler died soon after Arneth's first work was issued, but not too soon to prevent an appreciation of it appearing in the last edition of his great text-book of Pathological Anatomy. Robert Babcock, of Chicago, the author of the most recent large book in English on the Diseases of the Chest, bears witness to the value of Arneth's

work, especially as an indication in prognosis. However, it does not benefit to quote further opinions. The work must stand on its own merits.

I hope that the little I am able to tell you about it is of sufficient interest to induce some others at least to test its value. Any who do will, I think, find their labour rewarded.

(Read before the New South Wales Branch of the British Medical Association).

REFERENCES.—1. Arneth, Joseph: Die Neutrophilen Weissen Blutkörperchen bei Infektions-Krankheiten, Jena, 1904. 2. Arneth, Joseph: Die Lungenschwindsucht auf Grundlage Klinischer und Experimenteller Hämatologischer Untersuchungen, Leipzig, 1905. 3. Ziegler, Ernst: Lehrbuch der Allgemeinen Pathologie und der Pathologischen Anatomie, Elfte Auflage, Band II., Jena, 1905. 4. Babcock, Robert: Diseases of the Lungs, New York, 1907.

THE SHELF OPERATION FOR MOVABLE KIDNEY.

By C. MacLaurin, M.B., C.M. (Edin.), Sydney.

A GOOD deal of work has recently been done in Germany and Edinburgh upon the anatomy of the perirenal fascia, and the effects of movable kidney; and I propose to give a brief summary of the results and to illustrate them with four cases showing what one may consider typical varieties of that affliction.

Zuckermandel and Gerota described a structure, the perirenal fascia, which appears to have great influence in limiting the range of movement of the kidney; and David Waterston, of Edinburgh, an extremely reliable observer, has recently worked at the subject in conjunction with Alexis Thompson, confirming their results.

The perirenal fascia is attached above to the lower surface of the diaphragm behind the liver; it thence descends into the loin, and splits into two layers, an anterior and a posterior, which lie the one before and the other behind the kidney and supra-renal capsule. They also enclose the fatty capsule of the kidney. The anterior layer passes in close contact with the peritoneum, except where the ureter passes between them; it finally becomes indistinguishable from the peritoneum, except in those cases in which it merges into the peri-renal fascia of the other side. The posterior layer descends behind the kidney and ureter, and is attached to the psoas and quadratus muscles. The two layers do not unite below and medially; they do so above and laterally.

It follows, therefore, that the main support of the kidney is probably the apposition of the peritoneum and perirenal fascia to the abdominal wall below the viscus, and that this is to some extent maintained by the intra-abdominal pressure, as shown by Wolkow and Delitzsch; should anything arise to weaken this approximation or to cause bagging or pocketing of the peritoneum, there is evidently nothing to keep the kidney in position; for it is now certain that in adult life the attachment between the supra-renal capsule and the kidney is so weak that it cannot support any serious strain. It must be looked upon as a normal thing for the kidney to have a certain amount of movement, and in the vast majority of cases this movement causes no symptoms. In about half the number of these women it is possible to feel the right kidney moving more or less freely below the liver.

Admitting that the pressure of the peritoneum against the abdominal wall has a good deal to do with the support of the kidney, we may ask why movable kidney should be so much more common on the right side than the left. The reason is probably that the attachments of the ascending colon are considerably weaker than those of the descending. Thus, the splenic flexure is supported by the strong phrenico-colic ligament; there is no corresponding strong structure on the right side.

To sum up, we may say that the kidney appears to be supported by a sort of shelf composed of peritoneum and perirenal fascia which lies below it; but there is no fixed anatomical structure competent to hold it up; a large range of movement is compatible with health; but there are a series of symptoms which are pathological.

These symptoms are of two kinds: those referable to the kidney, and those referable to the ascending colon and caecal region.

The kidney symptoms are no doubt largely caused by torsion of the pedicle and the ureter. They may consist merely of vague pains and discomfort, together with the train of neurotic symptoms associated with splanchnoptosis; these patients frequently show retroflexion of the uterus, gastropexia and elongation of the mesentery. But in a certain proportion of cases there may be real attacks of kidney pain, the so-called Dietl's crises. One then finds severe renal colic, the pain shooting to the groin, nausea or vomiting, and frequently rise of pulse and temperature. In some instances it may be no easy matter to distinguish these from appendicitis, especially when they are accompanied by pressure symptoms on the colon.

As an instance of Dietl's crises I give the following:—

Girl of 22, housemaid, strong and healthy, strained herself in lifting a weight; afterwards she could never stoop down without being attacked by agonising pain in the loin and vomiting. The kidney was at such times intensely congested; the temperature would rise to 100°, and she was incapacitated from work. I sutured the capsule of the kidney to the lumbar aponeurosis, and she was well for three years. She then developed appendicitis; after removal of the appendix, she was entirely relieved. Although five years have passed, the kidney is still in perfect position. Note that she subsequently developed appendicitis.

In some cases the kinking of the ureter may lead to pyelitis, as in the following case:—

Girl of twenty was operated on for appendicitis, the appendix being adherent. Subsequently she developed pain in the right loin, and, on examination, a movable kidney was discovered. The urine contained pus in small amounts, there was dragging pain, and she lost flesh. She said that she had had no return of the appendix pain since operation, and that her present symptoms were entirely different, so it is clear that no mistake in the previous diagnosis has been made; this is confirmed by the presence of adhesions around the appendix. At the operation for movable kidney the kidney was found to be somewhat enlarged; it was incised and thoroughly palpated, but no stone or localised tubercular deposit was found, and there were no tubercle bacilli in the urine. The pyuria and lumbar pain were entirely cured by nephrorrhaphy.

The second series of symptoms caused by movable kidney is referred to the colon. According to Aglave, there may, in movable kidney, be proptosis of the hepatic flexure, causing kinking of the ascending colon and stasis therein; this leads to an increase in the bacterial infestation of the cæcum and ascending colon, and distension, and it would seem that this is a condition that should predispose to appendicitis.

I would therefore call attention to the following two cases, in addition to the two already reported, in which there was appendicitis co-existent with movable kidney:—

A woman of twenty-seven suffered from chronic appendicitis and pain in the loin. I removed the appendix twelve months ago. Since then she has had no further pain in the ileo-cæcal region, but the pain in the loin has continued. We noted at the time of the first operation that she had a movable kidney, but it was considered that the symptoms were more likely to be due to the appendix. On operation this was found to be dilated at the end and stenosed at the ostium. The pain in the loin returned after she got back to work, and was described as intermittent and sickening, often of grinding character and intensely severe. It ceased after a subsequent shelf operation.

A woman of thirty-two, recently married, developed dragging pain at the bottom of the back, and other symptoms of endometritis, besides severe colicky pains in the right kidney, shooting down to the groin. On examination I found retroflexion and movable kidney; I operated on both of these at the same time, but did not remove the appendix.

She was somewhat relieved, but complained of more or less incessant colic in the ileo-cæcal region. As nothing appeared to relieve this, I removed the appendix, which was kinked and adherent. She has had no pain or other bad symptoms since.

Here we have definite statements of four cases of movable kidney complicated with appendicitis. It seems that this is a subject worthy of further investigation. It is not improbable that the unusual mobility of the kidney, together with the laxity of the peritoneal attachments of the ascending colon, may lead to comparative stasis in that abode of bacteria, and consequent tendency to cæcal and appendiceal trouble.

The operation which I now do for movable kidney is simply the formation of a shelf beneath the viscus. An incision is made from the tip of the twelfth rib downwards and forwards, which is deepened by muscle-splitting; the peritoneum is pushed forwards; the canary-yellow fatty capsule of the kidney is stripped off and removed from its attachment around the hilum; the kidney is brought to the surface, split up the middle, and examined; if found normal, sewn up again; the peritoneum and Zuckerkandel's fascia are sewn to the fascia covering the quadratus lumborum with interrupted sutures of chronic gut, and the wound closed.

There is practically no pain or reaction, which is a great improvement on the vomiting and shock which used to follow the older methods, and so far as I can see at present the results are quite as good.

There are not very many cases of movable kidney which are suitable for operation, as it is hardly right to operate unless Dietl's crises, or other severe results, are occurring, and since we commenced to do the above operation, only two cases have been found. They seem to have done well, as in neither can I detect any unusual mobility of the kidney, and their symptoms are altogether cured. However, we shall see more about that in another year.

If, however, there should prove to be anything in the theory that movable kidney and appendicitis are in any way connected, it is clear that measures ought to be taken to fix the kidney, and incidentally to strengthen the peritoneal attachments of the ascending colon before further trouble is caused. The shelf operation is the least disturbing of all the operations on the kidney, and if properly performed should have an imperceptible mortality.

(Read before the New South Wales Branch of the British Medical Association.)

THE SIGNS AND SYMPTOMS OF APPENDICITIS.

By F. W. Doak, B.A., (Syd.), L.R.C.P., L.R.C.S. (Edin.),
Moosman, Sydney.

THE diagnosis of appendicitis depends upon certain symptoms and clinical signs, which, however, are not invariably present to a marked extent and which vary within very wide limits in their intensity and nature—so much so that although in a typical acute case the diagnosis may be extremely easy and hardly admit of any possible error, in other instances the diagnosis may be extremely difficult and almost impossible. Put briefly, we may say the diagnosis depends upon some or all of the following symptoms and physical signs :—

1. Abdominal pain.
2. Nausea and vomiting, with constipation.
3. Abdominal tenderness.
4. Tenderness elicited by the finger examining per rectum or per vaginam.
5. Symptoms of septic absorption, such as a rise in temperature and in the pulse rate.
6. Signs of threatening local peritonitis.
7. Signs of the formation of a local abscess.
8. Or possibly signs of a general peritonitis.

These symptoms and signs may nearly all be present early in the history of a case, though sometimes none of them appear typically till the case is advanced. Considered *seriatim* :—

1. In the majority of the cases the abdominal pain is severe and sudden in onset—so much so that often the patient can declare almost to a minute when the trouble started, and states that it nearly made him faint. This characteristic is, however, not always present, as cases do occur where the pain is very slight and may be taken for the ordinary discomfort of indigestion—so much so that the patient finds it difficult to say when the illness began. In my own small suburban experience I can call to mind two cases where men walked to my consulting-room making complaint, the one of a sore throat and the other of a cough, only incidentally remarking that they thought "their stomachs were out of order." In each of these cases examination revealed the presence of a lump in the right iliac region, which operation proved to be due to appendix abscesses, and yet the pain was so insignificant that they thought it hardly worth mentioning. Still in the greater number of cases the pain is really severe, and usually sudden in onset, and my clinical experience leads me to think that

a case ushered in with more than ordinarily severe pain usually turns out to be a severe and malignant one. The pain, so far as my observation goes, shows nothing particularly characteristic in its nature ; it is usually at first referred to the epigastrium or umbilicus, but later centres more in the usual anatomical appendix region, somewhere between the navel and the right anterior superior iliac spine.

2. An attack of appendicitis is usually accompanied with nausea or vomiting and a dirty tongue. Vomiting being almost invariably present as a reflex in any form of intra-abdominal inflammation, it is naturally to be expected in appendicitis ; and as constipation is a frequent precursor of the appendicitis attack, it usually persists during the attack. This, however, is not invariable, and I have seen cases where a very severe diarrhoea was present, so much so that in one instance the symptoms seemed typical of a case of ptomaine poisoning, for which indeed it was at first treated. This diarrhoea when present is presumably septic in character, and closely resembles that seen at times in cases of puerperal fever. When present it is markedly offensive. There is also sometimes present a diarrhoea such as is seen in cases of mucous colitis, seeming to prove that the conditions are consequent upon and related to one another in some way. I have twice seen cases of muco-membranous colitis cured by the removal of an appendix. The tongue is usually in the early stages foul and coated, giving the patient a bad taste in the mouth. This symptom has always seemed to me to be more marked and pronounced when pus is being formed or has been formed. In the later stages of the disease if not treated surgically the tongue may show the usual signs of exhaustion and toxæmia, becoming dry and brown and cracked.

3. There may be *abdominal tenderness to touch and pressure*. This symptom or sign depends greatly on the anatomical position of the appendix. If the organ be near the anterior abdominal wall the tenderness may be marked and very early, and can very easily be elicited by gentle pressure on what is commonly known as McBurney's point, i.e., a point about the centre of a line joining the umbilicus to the right anterior superior iliac spine. Sometimes one seems to almost feel the inflamed small sausage-shaped appendix through the abdominal wall. In other cases, when the patient is very stout or

when the appendix is in a position far removed from the anterior abdominal wall, there may be no local abdominal tenderness at all, at any rate till later on in the case.

I can remember very clearly making a mistake in the case of a young boy aged about 7 years who complained of pain, vaguely described by his parents as being near the hip. This boy had no vomiting, no constipation, and no local tenderness; he cried out when his hip-joint was moved, and had a suspicious appearance and a suspicious tubercular family history; yet on the fifth day of his illness a tender lump made its appearance quite suddenly in the usual appendix region, which operation proved to be an appendix abscess with the sloughing appendix free in the cavity.

Although this abdominal tenderness is not always present, when it is present it constitutes a very valuable diagnostic sign, and in doubtful cases one should always examine for tenderness on pressure over McBurney's point.

4. *Naturally*, if the appendix is in a position near the pelvis one may elicit pain or tenderness by making a digital examination per rectum or per vaginam. This is of the very greatest importance, and in my opinion may be the main factor in causing one to make a diagnosis in a dubious case, and consequently in all doubtful cases an examination should be made per rectum or per vaginam.

5. With the above-mentioned symptoms there are usually also present signs and symptoms of septic absorption, namely, a rise of temperature and pulse-rate, either singly or together, with possibly a rigor or succession of rigors. The presence or absence of these two symptoms in any case of abdominal pain and local tenderness is of great value in enabling us to come to a diagnosis and to a true estimate of the seriousness of any given case. If the patient have the subjective symptoms above mentioned and yet, after some hours, has no rise in either the temperature or the pulse-rate, then I think one could reasonably assume that the symptoms were due to some other cause than an inflamed appendix. But a rise in temperature, and more particularly a progressive rise in the pulse-rate, would incline us to the opinion (other things of course coinciding) that we had an appendicitis to deal with. And of these two symptoms I think more particular note should be taken of the rise in the pulse-rate than that of the temperature. Of still greater moment is the occurrence of a fall in temperature, together with a rise in pulse-rate.

6. Very early in the history of a case of appendicitis (that is to say in cases where the appendix is not far removed from the anterior abdominal wall) there will usually be found the symptoms of a localised peritonitis, being a condition which tends to give rest to the inflamed parts, an immobilisation of the abdominal muscles which lie in proximity to the appendix. To the palpating hand there will very early be felt a greater sense of resistance over the right iliac region than over any other part of the abdomen—in other words, the super-adjointing muscles will be “on guard” as if to protect the inflamed and weakened part beneath. Moreover, on close inspection during respiration this part of the abdominal wall will be found to move very little.

Later on in the course of the attack, if untreated, there may be symptoms of a general peritonitis similar to those of a peritonitis arising from any other cause, being a board-like abdomen, incessant vomiting, hippocratic facies, and a running peritonitic pulse; or if the attack is not of such great virulence there may occur the appearance of a definite localised tender lump indicating that adhesions have occurred around the inflamed appendix. This lump may subside and disappear in the case of a mild attack, or may on the other hand persist and grow larger, in which case a localised abscess has probably formed.

There are several other symptoms and signs occasionally to be observed, such as irritability of the bladder and drawing up of the right leg, but in my experience these are more frequently absent than present, and in any case are not of much service in helping us to come to a diagnosis.

An examination of the blood condition during appendicitis shows a leucocytosis such as occurs when inflammations happen elsewhere in the body, and it has been thought that a frequent examination and a frequent count of the white blood cells with repeated comparisons of the various kinds of white cells would be of immense service in aiding us to come to a more ready decision as to whether any given case was likely to prove a mild or a virulent one; but in ordinary practice I fail to see that this promise has been fulfilled, and I think that in the great majority of cases one can generally come to a right conclusion just as easily without it; though certainly I have seen one or two cases where it was distinctly useful.

From the foregoing it is obvious that the diagnosis of appendicitis is sometimes ex-

tremely easy, the symptoms and signs being so obvious and typical that they could hardly be caused by any other condition. But when the symptoms and signs are not *all* present, or when they are atypical or irregular, the diagnosis may be extremely difficult. One has only to name such conditions as the following:—Stone in the right kidney or in the right ureter, right-sided salpingitis; an inflamed ovarian cyst in the right side with or without torsion of its pedicle; a floating kidney on the right side; an attack of gallstone colic; mucous colitis, with paroxysmal pains; a psoas abscess on the right side; intestinal obstruction from any cause, such as strangulation by a band or internal hernia, etc., all of which may cause vomiting with pain and tenderness in the right side, to prove that a great many conditions may very closely simulate appendicitis. In most such cases the past history of the patient and an account of previously occurring attacks, and more particularly a very accurate history of the present attack, may help us to come to a correct estimate of the real condition. For instance, a past history of hæmaturia or pyuria, or of the passage of crystals in the urine, would suggest a kidney condition; the presence of jaundice would suggest gallstones; a derangement of the menstrual functions and general pelvic condition in the female would suggest pelvic peritonitis, and so on. But still I think it must be confessed that in many such cases the only honest diagnosis to be given is that the patient is the victim of a threatened or actual peritoneal catastrophe in the lower part of the abdomen, the actual cause of which can only be discovered by operative interference, the sole question then at issue and in doubt being the most suitable method and position for opening the abdomen.

Personally, I can remember in the past having treated for appendicitis cases that turned out to be—a psoas abscess of apparently sudden formation, a floating kidney with kinking of the pedicle, a right ovarian cyst with twisted pedicle, a twisted left broad ligament cyst which had become adherent to the appendix, a ruptured tubal gestation on the right side, and a hæmato-salpinx of right side with twisting of pedicle. The symptoms and signs in each of these cases closely simulated appendicitis, and the error was only discovered at the time of operation. I have no doubt other practitioners can remember similar experiences.

Still more difficult is it sometimes to come to a decision in early *slight* cases, where there is very little pain, very little systemic disturbance, but possibly a sudden turn for the worse which clears up the diagnosis, sometimes only too obviously. We often hear the wail of the consultant surgeons that they are called upon too late by the careless and ignorant junior practitioners to operate in cases of appendicitis which perhaps might have been saved or rendered less dangerous by an earlier operation; but I often think the consultant forgets the fact that it is very much easier to come to a diagnosis late in the disease, when *he* is called in, than it is earlier in the case when the junior man sees it. I know from my own personal experience how much more definite and decided I am in my decision when called upon by a colleague to give an opinion in a supposed case of appendicitis, which has been under his observation, than I am when called to see a case of my own early in the attack.

Early in the attack, if a mild or doubtful one, a man is confronted with two ideas, which, if he is a man of conscience, worry him considerably, the first being that he may let the patient run into danger by withholding operation, and the second that he may injudiciously be putting his patient to the expense, loss of time, and dangers of an operation which may not be absolutely quite necessary. I am afraid the general public has come to the conclusion that the profession has not many conscientious scruples on the second count!

I am also strongly of opinion that experience does give a man a more or less decided power of "intuition," so that in a case he can sometimes feel certain that the condition is appendicitis, and not salpingitis (for the sake of an example), without being able to give his exact reason for such a decision or to say what particular sign or symptom helped him to make up his mind. There seems to be a typical clinical picture or entity which to his experience suggests appendicitis.

In this short paper I have not attempted to differentiate between various classes of appendicitis, such as chronic appendicitis, relapsing, catarrhal, suppurative, gangrenous, fulminatory, perforative, and so on, as I believe such a classification to be unnecessary and not of any particular clinical use to a busy practitioner, whose chief worry in a case is to decide whether the illness *is* or *is not* appendi-

citis, and whether, if it is appendicitis, it is going to be a mild attack or a virulent one.

I am aware, that this is but a very incomplete and unscientific account of the symptomatology and diagnosis of appendicitis, and that the vowel "I" has occurred rather too frequently in it; but when I was asked a few days ago to write a short paper on the diagnosis of appendicitis I considered it better to state merely what thoughts had occurred to me in my ordinary daily work as a general practitioner, rather than to attempt to cull the written opinions and thoughts of the various voluminous writers on the subject, whose names are legion, more especially as in the short time allotted to me it would be impossible to do full justice to so large a subject: which I hope you will accept as an excuse for my shortcomings.

(Read before the New South Wales Branch of the British Medical Association.)

THE CAUSATION OF APPENDICITIS

By H. Critchley Hinder, M.B., Ch.M., Sydney

My remarks to-night will be based upon an experience of over 1100 cases of appendicitis operated upon by me during the past 14 years, and a knowledge of the normal appendix obtained by a visual examination *in situ* many times when the abdomen has been opened for other purposes. My attention was first drawn to the probable causation of appendicitis by the marked similarity which existed between the symptoms of appendicular colic, biliary colic and renal colic. Whenever a gall-bladder is examined during an acute attack—during the attack, mind you—it will be found to be distended and very tense. Whenever an appendix is examined right in the middle of an acute attack the appendix will be found to be acutely distended (unless it has already ruptured), or it will show evidence of a distension which has passed away very recently indeed, sometimes even while manipulation is in progress, in order to bring about its delivery through the abdominal wall. Even as in the gall-bladder attacks of biliary colic are not necessarily due to the presence of gallstones, and I speak with absolute certainty from my own clinical experience, so in the case of appendicular colic, calculi may or may not be present. While examining affected gall-bladders we may see all the stages of stone formation. In some cases merely thick bile is present; in others it is so thick that it will hardly run at all; in others it is putty-like; in others there

are small calculi, or one or more large calculi. I can assure you that examination will reveal similar varying degrees of consistency in the contents of the abnormal appendix. Putting on one side those rare and certainly very fatal cases due to embolism of the mesenteric artery, I have been greatly struck with the large proportion of appendices which on removal have been found to contain concretions. Concretions, or stones, most commonly form in hollow cavities or hollow viscera. They are made up of salts held together by dead epithelial cells, dead organisms and mucin-like secretions, which serve to hold the mineral matter together, and the softness or hardness of the concretion simply depends upon the softness or hardness of the preponderating element. I have seen two concretions in the appendix so hard that one would be very inclined to call them gallstones, but examination proved them to be of a totally different character. I do not believe that a stone ever forms in a freely running stream, but if you place a nucleus in a hollow passage or viscus from which it cannot escape, its mere presence acts as an irritant which brings about the deposit of those very binding materials which go to produce its own increase. Cholecystitis precedes the formation of stone in the gall-bladder. It is true I once saw stones in little dilatations in the ducts of the liver in a patient who had suffered from obstruction to the common duct, but some of these were so situated that it was practically impossible for them to escape, and they were most probably formed because of the stagnation produced by an obstruction in the common duct. I think, then, that if you will give the matter due consideration you will arrive at the conclusion that stones never tend to form in a canal or hollow organ which has a free get away for its contents; but the slower the stream, the narrower the outlet, the greater will be the possibility of blockage and the subsequent formation of stone. The consequent gradually increasing density of the natural secretion culminates in the production of deposits, sometimes soft and pultaceous, at others hard and gritty, which are so commonly found within the appendix. Those of us who have had a large surgical experience know that when operating on very acute cases we almost invariably find the appendix acutely distended with fluid. Even as in the gall-bladder, so in the appendix a concretion appears at times to be the actual cause of the block; while at others, although a concretion:

is present, the blockage is brought about merely by the swelling and consequent narrowing of the outlet. In cases of recurrent appendicitis operated upon in the interval, or during a quiescent period, there will be no distension, but the greater size of the appendix and the marked increase in thickness of its walls will certainly attract attention. This hypertrophy of a hollow muscular organ whose duty is to secrete and to get rid of its secretion simply implies that more than a normal amount of work has been forced upon it in driving out its contents—that is to say, a narrowing of the normal outlet has been created. The presence of appendicular calculi or concretions is further evidence that there is no free get away for the appendicular secretion. As in the case of an attack of cholecystitis the pain is due to the tension of the gall-bladder, so in the appendix is the pain due to the tension caused by the pent-up secretion, relief and recovery in each case depending on the ability of the contents to escape. I do not for one moment wish to draw any comparison between the functional utility of the two sacs; that is wholly beside the question.

Granted, then, that the attacks are brought about by a narrowing and obstruction of the canal, what is the cause of the narrowing? In a large percentage of cases this will be found to be congenital. The appendix possesses one, two, or three constrictions, and the proneness of the individual to experience an attack depends largely on the degree of narrowness at these annular constrictions; that is to say, the greater the degree of constriction the easier becomes the possibility of obstruction. The exciting cause which completes the obstruction may be brought about either by an extension of an inflammatory trouble affecting the mucous membrane of the cæcum, or it may be that the appendix, possessing as it does a large amount of lymphoid tissue, may be more prone to the reception of infection from the neighbouring bowel. The fact remains that every case of chronic appendicitis possesses a marked hypertrophy of the wall, and possibly calculi, and every case of appendicitis where the pain is acute will exhibit to the operator an acutely distended appendix, or will show evidence of having very recently got rid of its contents.

The main reason for the greater danger and mortality attending acute appendicitis is due to the fact that the appendix is not capable of very great distensibility; its limit is soon reached, and the vitality of its walls soon

destroyed; whereas in the case of the gall-bladder there is a very large degree of distensibility. To my mind the foreign body theory, the special germ infection theory, are idle contentions; so long as the appendix is not devitalised by a mechanical obstruction, germs bother it as little as they do other healthy parts. The straining of foods, the avoidance of swallowing seeds is ridiculous, and can hardly be seriously considered..

Let me conclude by repeating myself to some extent. Appendicitis is almost invariably due to an obstruction to the outflow of the appendicular contents. The primary obstruction or constriction is usually congenital, but may also be occasioned by kinks or flexures brought about by adhesions formed in the immediate neighbourhood. If the narrowing is marked, complete occlusion is readily produced by any slight swelling of the lining-wall.

The intensity of the attack depends partly on the degree of blockage and partly on the virulence of the organism present. A recovery from an attack implies that the contents have been enabled to escape. What is sometimes spoken of as a fulminating or gangrenous appendicitis indicates that the block has been absolute, so that a rapid death of the wall has taken place aided by organisms whose virulence has become intensified and who have readily taken advantage of the diminished vitality of the cells forming the wall of the appendix. The formation of abscess is evidence that the process has been sufficiently slow to allow the affected part to become shut off from the neighbouring peritoneal cavity.

(Read before the New South Wales Branch of the British Medical Association.)

THE OPERATION FOR ACUTE APPENDICITIS.

By **W. Chisholm, M.D. (Lond.), M.R.C.S. (Eng.),**
Senior Hon. Surgeon Sydney Hosp.; Hon. Consulting
Surgeon Royal Alexandra Hospital, Sydney.

BEFORE going on to describe the operative treatment of acute appendicitis I would like to state what appears to me the most satisfactory lines on which to proceed in the treatment of this most alarmingly frequent condition.

The lay mind hardly seems to appreciate the limitations which hedge us in in our work; the public read in the papers of the wonderful triumphs of modern surgery, but they little realise the number and complexity of the conditions over which it is necessary to have

control before it is possible to achieve those triumphs. It is owing to our not always being able to command these conditions that the treatment of acute appendicitis cannot always be surgical, and, while I am in favour, whenever possible, of operating on cases of acute appendicitis as soon as ever the diagnosis is decided upon, it should be recognised that where a surgeon's experience is not considerable, or he cannot obtain adequate assistance, the patient's interests may best be served by careful expectant treatment. I have never yet regretted haste in operating for acute appendicitis, but I have regretted delay. As to the operation itself, I take, first,

The Incision.—The so-called gridiron incision, with separation of the fibres of the internal oblique and transversalis muscles, will be found satisfactory in many cases. Where more room is required, as is often the case, this can be obtained by carrying the horizontal part of the incision into the sheath of the rectus, and retracting this muscle inwards. Lately I have been using more frequently the incision over the outer third of the rectus, drawing this muscle inwards, and opening the peritoneal cavity behind the rectus. This incision is found especially useful in the female, if it is found necessary to deal with the pelvic organs on that side. The nerves can generally be displaced upwards and downwards, and it is an incision which has given me only satisfaction. The presence of a localised swelling or the seat of maximum tenderness in a particular case will often help the surgeon in his choice of incision. As to the length of the incision, I think undue stress is laid on the importance of confining this to the smallest possible limits. That it should be as small as possible consistent with the safety of the patient is a truism, and the safety of the patient will be best conserved by the surgeon not putting difficulties in his own way. For the average man two senses are better than one, and in any case presenting unusual difficulties that surgeon will do the best for his patient who makes his incision of sufficient length to enable him to supplement his sense of touch, no matter how erudite or finely trained, by that of sight. Moreover, in working at a difficult case through a small incision the edges of the wound are apt to be bruised and damaged somewhat by the knuckles of the operator, and this may militate against that immediate union which is so desired by the surgeon who is obsessed by the dread of post-operative hernia. For

these reasons, which seem to me orthodox from both a surgical and commonsense standpoint, I cannot be a votary to the small incision. For all practical purposes we may adopt the usual classification, and take three conditions of the appendix which are met with in operating on acute cases.

First.—When the appendix is swollen and inflamed, but where, though there may be recent adhesions, or older adhesions giving evidence of former attacks, the wall of the appendix is still intact. Here all that is necessary is to remove it by one or other of the well-known methods. My own preference is to crush the appendix near its base, apply a catgut ligature round the crushed part, as close as possible to the cæcum, cut off the appendix immediately beyond the ligature and invaginate the stump (rendered less bulky by the crushing) into the cæcum by means of a purse-string suture. This method has been condemned by some, and I have heard of post-mortems where the purse-string suture has been demonstrated to have given way and the contents of the cæcum to have escaped into the abdominal cavity. The appendix should always be ligatured before the stump is invaginated, and care should be taken in applying the purse-string suture to catch up enough of the muscular and submucous coats of the cæcum. When this method has failed, the failure has been due rather to faulty work than to the method itself, the purse-string suture having probably taken up little more than peritoneum. In these cases the abdomen can generally be safely closed without drainage; but in cases where there is any doubt as to the condition of the wall of the appendix, and bearing in mind that in cases of gangrene of the bowel infective micro-organisms are found infiltrating the bowel wall for some distance from the actual gangrene, it would be better to pass a small drain down to the site of the appendix. Some surgeons in these, and also in other cases, pour a pint or more of saline solution into the abdominal cavity before closing it. There may be cases where this is beneficial, but in the majority it appears to me to be at least superfluous.

In the second class of case where there has been more delay, and the inflammation has gone on to gangrene of the appendix either wholly or in part, with the formation of an abscess which is fairly well shut off from the rest of the abdominal cavity, there are a few points on which surgeons are not agreed. In

some cases the anterior abdominal wall forms part of the wall of the abscess cavity, and it is in these cases especially that the muscles and tissues of the abdominal wall are found to be cedematous, and pus is sometimes encountered before the peritoneum is definitely recognised. In such a case the condition of the patient may render it advisable for the surgeon to content himself with putting in a tube, and removing the appendix later on, if necessary. In other cases the appendix may be found perforated but securely wrapped round with omentum. In such a case it is well to remove the appendix, together with the portion of omentum surrounding it. In other cases the abscess may be found in the iliac fossa or pelvis, and shut off from the rest of the abdominal cavity by omentum and adherent coils of intestine. In these cases the cavity should be swabbed out gently, and for this purpose I know nothing better than soft pieces of the now neglected marine sponge. If the appendix presents readily, or can be demonstrated without an excessive disturbance of the parts, it is best to remove it. In those cases, especially when the appendix is retro-cæcal, I think a rather determined effort should be made to remove it at the time. Sometimes the tip has sloughed away and a concretion is lying behind the cæcum in the midst of a small collection of offensive pus. It is difficult for this to escape owing to its situation, and I am inclined to think that it is in cases of this kind that, when merely opened and drained in the first instance, a later operation is necessary in order to remove the appendix or a concretion. Moreover, these cases are apt to be followed by subphrenic or hepatic abscess. At the same time I do not think it the best practice to insist on removing it in all cases and under all circumstances. In some cases the appendix has almost entirely sloughed away, and its remains form part of the contents of the abscess cavity. The cavity when cleaned may with advantage be dusted with iodoform and packed lightly with gauze, or merely drained by means of a rubber tube. I think it rarely necessary to irrigate in these cases. It is well to be on the lookout for concretions; in many cases where a sinus has persisted after merely opening the abscess, without removal of the appendix, this has been due to the retention of a stercolith. In my own work I do not recall ever having to reopen the abdomen to remove the appendix in any case treated on the above lines and when the appendix was not removed in the first in-

stance. One case certainly returned with a sinus, but this healed after curetting and applying pure carbolic acid. Simply ligaturing the appendix, or what remains of it, with a fairly stout piece of catgut is all that is necessary, and drainage of some kind, according to what is considered best for the particular case, should be always employed.

In the third class are those cases of gangrene of the appendix with abscess, but where little or no attempt has been made to localise the abscess and the pus is widely distributed, so that we have a case of more or less general peritonitis. Here no one line of treatment can be always followed. When the pus appears limited the case can often be treated on the lines laid down for the second class of case, but in all it is best to drain, if only by a small split rubber tube, containing a strip of gauze, passed down to the stump of the appendix. Even in cases where the pus is in Douglas's pouch, or the recto-vesical pouch, and appears limited to this region, the same treatment may be followed, but here, in addition to a cigarette drain going to the site of the appendix, a long split rubber tube containing gauze should be passed as low down into the pelvis as possible. Rarely it may be thought advisable in women to drain per vaginam.

In cases where the peritonitis is more extensive and there is much pus free in the abdominal cavity, I am strongly in favour of irrigation and subsequent drainage. At the same time it is not the case which has the most pus that is the most dangerous. I cannot share the belief, nor do I care to act on it, that this pus contains a beneficent army of leucocytes and that we should be chary about getting rid of any of them. A good general does not hesitate to sacrifice a few men if he can thereby destroy a great number of the enemy. The surgeon may well carry out this principle in his warfare against disease. E. M. Corner believes that we must look to the pyogenic micrococci for the starting point of cases of acute perforation and gangrene in whatever part of the alimentary tract it may be situated. We probably have to deal with the products of the activity of various micro-organisms, and seeing that it is impossible at the time of operation to ascertain the precise nature of the infective process we have to deal with, the interests of the patient will best be served by our ridding him of as many of these products as we can. In no way can this be done better than by irrigation, but this must be

done properly. I have seen irrigation performed in a way that could hardly do anything but harm. If the irrigating tube is placed in the abdominal wound and the cavity distended as fully as possible with saline solution, which is then allowed to escape as best it can, infective material will thereby be carried further afield; but if a counter opening be made in each loin, and irrigation carried on through these while the abdominal incision is held widely open to allow the ready escape of the fluid (which should be introduced at a low pressure), then the abdominal cavity and pelvis can be safely cleansed. The stream of saline passes from the less infected towards the more infected parts of the peritoneal cavity, and this can be further aided by raising the head of the operating table. Most of the fluid which does not escape in this way can now be removed by sponges passed deeply into the pelvis by means of holders. The remainder, which doubtless contains the toxic products of bacterial activity, though now much diluted, may be removed by means of drainage during the next few hours. In these cases it is wise to drain through both incisions in the loins as well as through the original incision. The site of the appendix is packed round with iodoform gauze, and this, as it passes to the surface of the body, is surrounded by rubber tissue. A long split rubber tube containing gauze is passed deeply into the pelvis. It is argued that drainage is useless after a few hours, and experiment proves the truth of this; but it is for just these few hours that I think it important to make use of it. By means of cigarette drains and split rubber tubes containing gauze, a good deal of fluid is removed by capillary action. It is true this ceases after a few hours owing to coagulation of lymph in the meshes of the gauze, but while it is going on it is aided by dressing the patient two or three times at two-hourly intervals and putting fresh gauze over the ends of the drains. The cigarette drains and rubber tubes can generally be easily removed in a day or two, but when it has been found necessary to pack a cavity with gauze this is rarely removed under a week, and not then unless it comes away easily.

Perhaps this paper should not close without reference to the Fowler position and the method of continuous saline rectal injection of Murphy. The former I believe to be a most useful adjunct in bringing one's desperate cases to a successful issue; as to the special efficacy of the latter I cannot express

an opinion seeing I have never employed it. More than 25 years ago I remember it was Mr. Heath's custom in cases of severe shock after operation to order an ounce of brandy in half a pint of tepid water as a rectal injection. In bad cases of appendicitis where shock is added to profound toxæmia I have used a modification of Mr. Heath's method, substituting normal saline solution for plain water. From 10 to 20 ounces are ordered as an injection every two, three or four hours, according to the patient's condition and power of retention. Of the benefit derived from this I am fully convinced, and feel it hard to believe that any modification of this method as introduced by Murphy is capable of making the difference of life or death to the patient; the simplest means are generally the best, and it is a good rule to do nothing more than is needful. Seeing the number of successful cases which have been treated under such diverse and almost opposite methods, it ill becomes any of us to be too dogmatic as regards any particular method, and one is almost forced to the conclusion that the result often hangs more on the old question of the virulence of the infecting organism as compared with the resisting power of the patient.

These, however, are the chief measures employed by me in the operative treatment of acute appendicitis. It may appear to some that they are lacking in boldness and that too much stress is laid on the necessity for drainage. It is hard for us all to get away from early impressions and teaching, and being among those who can remember the great dread formerly entertained of opening the peritoneal cavity, I cannot help feeling that there is a tendency to-day to go to the opposite extreme and credit the peritoneum with an unlimited capacity in dealing with infective organisms. In most of these operations it is a question between life and death for the patient, and while "playing for safety" may not be applauded in the billiard-room, it is a very good game to play in the operating theatre, in spite of any subsequent drawbacks which may ensue.

Adulterated Milk.—A movement has been set on foot in Adelaide by the Metropolitan Dairies' Board to alter the law relating to fines for adulterating milk. An attempt is to be made to get Parliament during the present session to pass a bill enabling magistrates to send a milkman to prison without the option of a fine after a first conviction. It is also suggested that the power now given to justices of the peace under the Justices Procedure Act to reduce the minimum penalty should be taken away, so that in no case a fine of less than £5 may be inflicted.

A SHORT REVIEW OF THE FIRST SIX YEARS' WORK AT THE QUEEN'S MATERNITY HOME, ADELAIDE.

By T. G. Wilson, M.D. (Syd.), F.R.C.S. (Ed.), Hon. Medical Officer, Queen's Home; Hon. Gynaecologist Adelaide Hospital.

DURING May, 1908, the 1000th case of confinement since the opening of the Queen's Home in May, 1902, took place, and as that happened to be my month of attendance there, it struck me that a short review of the results of these cases might be of interest. While I realise that statistical reports and tables do not form very interesting reading, there is nevertheless, sometimes, much valuable information to be obtained from a study of such tables; also the completion of such a series enables us to compare the results achieved with those of some of the older and bigger maternity hospitals in other countries.

Another reason is, that it has been suggested that this review might serve as an introductory paper for a midwifery evening, in which subject we are all to a greater or less extent interested.

So far the cases treated at the Home have been all intern cases, although the question of extending the work to extern cases has several times been suggested, but when the question has been referred to the Medical Committee, they held the opinion that this course was not desirable. While there has been a definite routine preparation and aseptic and antiseptic treatment of all these cases, naturally the exact course to be adopted in each individual case varied according to the views of the different "honorarys" in charge of these patients.

The Home being for the use of married women only, all these cases were presumably such, and though the number of primiparae may seem somewhat disproportionate to the total number of cases, I believe that a very considerable number of these primiparae had been married within a few months of their confinement. While a maternity charity for married women only may seem rather an anomaly, it was in deference to the ideas of the original founder of the Home that such is the case. I believe that I am expressing the views of the medical staff in hoping that, in the near future, the powers that be may see their way clear to broaden this basis, and while guarding against imposition by retaining the present £2 per week income limit for applicants for admission, the committee will open the doors to any woman, married or

single, who has to go through this ordeal, and is not able to pay for proper attention outside.

I am indebted to my colleagues on the staff for permission to make use of their chart-books, etc. Of these 1000 cases there were 366 primiparae and 634 multiparae. There were 1008 children born, 16 being twins, 962 being alive at the time of birth, and 46 being stillborn.

Frequency of presentations:—
Cephalic. 981 Breech. 18 Transverse. 1

Cephalic presentations occurred in the following frequency:—

L.O.A.	R.O.A.	R.O.P.	L.O.P.	Brow.	Face.
616	292	47	18	6	2

There is little to remark on about the order of frequency of the above presentations, except the relative frequency of brow as compared with face cases in this series. The greater frequency of the second position of Nægele R.O.A., as compared with the third, R.O.P., is accounted for by the time at which the observation was made, as it is generally recognised that of the cases where the back of the foetus lies to the right the head engages at the brim of the pelvis much more frequently R.O.P. than R.O.A., but the great majority of these cases undergo a long rotation to the front, and so come eventually to the R.O.A. position. There were 65 persistent occipito-posterior cases. Of these 1000 cases delivery was accomplished by forceps in 87 cases, owing to lingering labour or other complications.

The following is a list of the chief complications which were met with:—2 cases of prolapse of the cord; 1 case of hydramnios; 1 case of carcinoma of cervix, where delivery was accomplished by Cesarean section (this case has been fully recorded by Dr. Lendon); 3 cases of placenta prævia; 4 cases of pyelitis of pregnancy; 10 cases of eclampsia in which fits actually occurred; 24 cases of toxæmia of pregnancy in whom marked toxic symptoms were present, but who actually did not develop fits; 34 cases of post-partum hæmorrhage, where the bleeding was at all severe, and came on either before or after delivery of the placenta; 2 cases of contracted pelvis in whom labour was induced because of this complication.

In these 1000 cases there were eight deaths directly due to parturition. These were due to the following causes:—Eclampsia, 3; morbis cordis, 2; placenta prævia, 1; ruptured uterus, 1; sepsis, 1. Of the cases of eclampsia, one died a few hours after admission undelivered, the other two were de-

livered, but succumbed as a result of the eclampsia. The two cases of morbus cordis, both had serious organic heart trouble; one aortic, the other mitral and aortic, and both died within a few hours of delivery. The case of placenta prævia died from loss of blood before and after delivery. The case of ruptured uterus presents some points of interest. She was admitted to the home in a state of profound collapse after being in labour for four days, forceps having been applied on several occasions without success. Delivery was accomplished by perforation of the head, but the patient died half an hour later, never rallying sufficiently for any treatment for the rupture of the uterus, which was diagnosed beforehand. There was no bleeding externally nor intraperitoneally, and at the post mortem the pelvis was found to be well up to the normal measurement. The only cause of obstruction found was unusual ossification of the fetal skull bones, probably due to post-maturity, as the patient was four weeks over her expected time. This was the fifth pregnancy, three being stillborn and the fourth being two weeks over time. This post-maturity of the fetus, though an unusual cause of dystocia, is a well-recognised one, and is one of the conditions in which Cæsarean section has been deemed justifiable if diagnosed before dilatation of the cervix. This patient's condition on admission precluded the possibility of any major abdominal operation. The case of sepsis was in the home only a few hours, and was septic on admission, with a pulse of 130 and a temperature of 103°. She was sent to the Adelaide Hospital, where she died next day. Amongst these 1000 cases there were 35 cases where septic symptoms post-partum were serious enough to necessitate local treatment, curettage, or washing out the uterus. These all recovered.

At the conference of the British Medical Association in 1906 the question of morbidity during the puerperium was discussed, and in order to have some definite standard by which such cases could be compared it was decided to define as morbid any case of confinement in which the temperature twice rose to 100° between the second and the eighth day of the puerperium—i.e., at any two consecutive readings, morning and evening, or evening and morning temperature, and irrespective of what was the cause of such temperature. Most of the larger Continental and British lying-in hospitals have of late years adopted

some such standard of morbidity. At the Rotunda Hospital in Dublin, for instance, a case is considered morbid if the temperature rises to 99° and stays above that for 24 hours, together with a pulse rate of 90. The general standard of morbidity in Continental hospitals is when the temperature rises to 100·6° twice during the puerperium, so that the B.M.A. standard is slightly different from these two. The object of excluding the first day after confinement is in order to exclude the reactionary temperature which so frequently manifests itself immediately after labour. It was originally with the idea of arriving at the morbidity ratio at the Queen's Home for these 1000 cases that I undertook to go over the temperature charts. It is becoming more generally recognised nowadays that the morbidity ratio forms a much better criterion of success in obstetric practice than tables of septic mortality, because, although a patient may not die directly as a result of puerperal sepsis, a mild infection contracted at this time may, and often does, cause much invalidism and suffering, and necessitates serious and often mutilating gynecological operations at a later date. Judged by the B.M.A. standard there were 89 cases in this series to be considered morbid, i.e., morbidity rate of 8·9 per cent. By the Continental standard the morbidity ratio is 13·6 per cent. I have looked up reports of several British and American lying-in hospitals in order to compare their results as regards morbidity with those given, but find that many of these hospitals have adopted a slightly different standard, so that comparison is impossible or valueless; but the three following hospitals give some idea as to how the Queen's Home morbidity rate compares with hospitals elsewhere:—St. Mary's Hospital, Manchester: Report for 1906—659 intern cases, morbidity ratio, B.M.A. standard 9·2 per cent. Rotunda Hospital, Dublin: Intern cases for 1906—morbidity ratio, B.M.A. standard 8·4 per cent. Montreal Lying-in Hospital: Report for 1906—intern cases, morbidity ratio Continental standard, 16 per cent. So that as far as one can judge from these comparisons it is satisfactory to know that the morbidity ratio for the first six years of working of the Queen's Home compares so favourably with three such well-known lying-in institutions as the three mentioned.

(Read before the South Australian Branch of the British Medical Association.)

MIDWIFERY STATISTICS.

By Arch. A. Hamilton, B.A., M.B., B.Ch.
(Dublin); L.M., Rotunda Hospital; Hon. Assist.
Physician, Adelaide Hospital.

THINK we all owe Dr. Wilson a debt of gratitude for the very interesting paper which he has compiled from the results of the work in the Queen's Home. Personally I have also to thank him for sending me an advance copy of his paper. At the request of our secretary I have compiled some statistics from my private practice for comparison. That they may be thoroughly representative of private practice I have omitted all cases attended at an institution with which I was connected for some years. With this exception, and the omission of a few cases attended on behalf of colleagues, which I had no opportunity of following up, these notes represent 1000 consecutive cases. I have worked out the morbidity on the basis suggested by the B.M.A.

My routine instructions to the patients are to take a warm bath and a dose of castor oil when the pains begin, and to provide beforehand some solyptol soap, creodol and a new nailbrush. On reaching the house I wash my hands well in hot water, generally with solyptol soap, using the nailbrush freely on the nails and sparingly on the rest of the hands. I then wash well in creodol or lysol lotion, and finally soak my hands in biniodide of mercury, about 1-1000. The vulva is washed with lotion. The only lubricant I have used for years is soap.

Number of cases, 1000; born before arrival, 182; twins, 15; abnormal presentations, 232, as follows: occipito-posterior 186, breech 25, foot 10, face 4, transverse 3, funis and head 2, head and hand 1, knee 1. Complications: P.P. hæmorrhage (prim. 25, sec. 2), 27; placenta prævia, 7; eclampsia, 2; anencephalous monster, 1. Mode of delivery: forceps, 433 (52.93 per cent.); version, 22. Administration of anæsthetic, 482 (59.65 per cent). Deaths, 2; morbidity, i.e., a rise of temperature to 100° twice between the second and eighth days of the puerperium, 13 (1.3 per cent. Morbidity rates cannot fairly be compared in hospital and private practice, as in the latter the temperature is not taken with the same regularity. In my cases, unless a trained nurse were in attendance, I took the temperature at my ordinary visits on the first, second, fourth and sixth days. Of course, when any rise occurred I took the temperature on the following day. This, naturally, does

not affect the cases of definite sepsis, requiring treatment. The very large number of occipito-posterior presentations compared with the Queen's Home cases, viz., 186 against 65, may be easily explained. No doubt the majority of mine would have undergone spontaneous rotation if the agony of the mothers had been sufficiently prolonged. My practice for many years has been, when the os is fully dilated or easily dilatable and the head does not come down, to anæsthetise the patient, pass my left hand in till I can grasp the head, and satisfy myself thoroughly as to the exact presentation. Then, if occipito-posterior, I rotate the head and hold it in the proper position till one or both blades of the forceps are adjusted, and complete the delivery.

It is difficult to compare statistics of hæmorrhage, as there is no definite standard and each observer's ideas may vary. The 27 cases which I have recorded include many slight ones and a very few more serious. The two deaths comprise one from pneumonia, which was not due to parturition at all, and one from placenta prævia. The cases are as follow:—

Mrs. G.B., æt. 38, 7-para, due about March 3rd. Well up to March 1st when pain came on in right side. March 2nd: temperature 101°, pain very acute, abundant rusty expectoration. Baby born that evening by natural efforts, after a very easy labour of one and a quarter hours. March 3rd: consolidation of right base. March 4th: consolidation of right upper lobe as well. Died that evening of collapse. She had twice suffered from pneumonia during the previous ten years.

Mrs. S., æt. 37, always delicate; primipara, married 17 years. Hæmorrhage set in early in the morning, and she had lost a good deal before I was sent for. The placenta covered about half the os, and I turned and delivered. The placenta was closely adherent over a considerable area. She died about two hours afterwards with symptoms suggestive of pulmonary embolism.

Morbidity.—Of the 13 under this head, five had a rise of temperature on two days only. One was due to mental excitement, one to advanced phthisis and hæmoptysis, and one to hemiplegia, which came on suddenly on the third day, probably embolic.

Three cases were up to 100° on 4 days. One from mastitis, another traumatism in a very severe instrumental case, where version was performed after the forceps had failed, and the perineum was torn into the rectum. The

temperature only reached 100.4° at highest, and good primary union of the perineum was secured. The third was a primipara with old morbus coxæ, whose left hip was much flattened and riddled with discharging sinuses at the time of delivery. There were three cases of definite septic infection, in which the temperature remained above normal for 11, 11, and 17 days respectively.

In a paper read before this Society in 1889, I dwelt on the powerful influence (on morbidity) exercised by tears of the perineum, I wrote then: "Tears, which would not interfere in the least with the functions of the perineum, or give rise to any after discomfort, may be sources of serious danger as openings for septic absorption." That is as true now as it was 19 years ago, and I believe that careful suturing of the perineum, even in trifling tears, plays an important part in preventing rises of temperature.

We come now to the percentage of cases in which anæsthetics were administered and forceps used. In practically all these cases A.C.E. was employed. The quantity used varied from about 40 minims to about 19 drachms, and the duration of administration from 10 or 15 minutes to about two hours. I never give A.C.E. till the os is fairly dilated, or at least soft and dilatable, and when once the patient has lost her sensibility to pain, I do not allow her to regain it till the placenta has been removed and the perineum made secure. In the earlier stages of labour much may be done to mitigate the patient's sufferings and hasten the dilatation of the os, by the hypodermic injection of morphia, either alone or combined with atropia. It is astonishing sometimes to note how rapidly the os dilates and how quickly labour progresses under the influence of morphia. I am sure we might all make much more use of this drug in these cases than we do, with great benefit to our patients.

Statistics of private and hospital practice on the use of anæsthetics and forceps must always differ widely. Hospital statistics are useful to remind us of what Nature, comparatively unaided, can accomplish.

Pregnancy and parturition are so familiar to us that we seldom pause to consider what they really mean to each individual woman. Nine months of tedious waiting with, in most cases, numerous minor discomforts and inconveniences, to put it mildly; then, ever looming in the background, drawing nearer day by day, hovers the grim spectre of pain, guarding, as it were with the fiery sword of

agony, the gates of the paradise of motherhood. Can we wonder that some shrink from treading such a *Via Dolorosa*? Rather may we marvel at the steadfast courage with which the majority face the situation.

We owe to the whole of womankind, to our own humanity, and to the profession to which we are proud to belong, the duty of relieving the pangs of childbirth as much as we possibly can, consistently with the safety of our patients. Then comes the crucial question, Is the safety of our patients endangered by the free use of anæsthetics and forceps in skilled hands? The frequent use of forceps I regard as a necessary corollary to the free use of anæsthetics. Morphia, in the early stages, seems free from any bad results. An enormous number of records have proved that the administration of ether, chloroform or some combination of the two, to the extent required in childbirth, is practically free from any direct risk. The one charge frequently laid to the door of anæsthetics is that they increase the tendency to hæmorrhage. Do any of us really believe that hæmorrhage is a greater bugbear nowadays to ourselves than it was to our forefathers? Is it not rather a fact that, with improved methods of dealing with the third stage of labour, serious hæmorrhage is becoming more rare? The 27 cases in my record include many which were very slight and required no treatment beyond a little extra pressure on the fundus. The only case of primary post-partum hæmorrhage which gave me any real anxiety was one in which the baby was born by natural efforts during my absence.

So much for drawbacks. The advantages are manifold and obvious. Not the least is the fact that we minimise the dread of labour, and lessen the temptation to shirk the duties of maternity. How often do we hear a patient say, "I don't care a bit as long as I have chloroform." Now that the falling birth-rate is a burning question in politics and the pulpit, we must diminish as far as possible the terrors of the lying-in chamber. We shorten the hours of labour, economise the physical strength and vital energy of the patient, and are enabled to diagnose with certainty at an early stage, and, as a rule, correct with facility O.P. presentations, thus saving many hours of weary suffering. By guiding the head we can help to preserve the integrity of the perineum, and can restore it, when torn, without inflicting additional pain. We have heard much of "meddlesome midwifery," and of providing work for gynæ-

cologists by interfering with the course of nature. Dr. Wilson strikes the true note when he refers to septic infection causing subsequent serious troubles. It is not the skilful use of forceps, nor the careful administration of anæsthetics which gives employment to our friends, the gynæcologists. It is septic infection first and last. I quote no authorities, but leave my figures, a morbidity of 1·3 per cent., a mortality, due to parturition, of ·1 per cent., and septic infection in at most ·4, or possibly ·5, per cent., to answer the question whether my last 1000 private patients have incurred serious and increased risks, owing to my free use of anæsthetics and forceps, safeguarded by careful antiseptic precautions.

(Read before the South Australian Branch of the British Medical Association.)

ANÆSTHESIA IN LABOUR.

By Frank S. Hone, B.A., M.B., B.S., Semaphore, S.A.

I PROMISED the secretary that I would put together some remarks on the management of the first stage of labour, because I have been often struck with the multitude of articles we see on the proper management of the third stage and the comparative rarity of any remarks on the anxieties of the first stage. Yet I suppose in actual practice the experience of all of us has been that against the minutes of worry we have had in the third stage we have had many wearing hours of anxiety over tedious first stages.

But on reflection I have come to the conclusion that on most of the details of management we are probably all agreed. On such points as the systematic examination of urine during the last months of pregnancy, the proper regulation of the bowels, the adoption of as careful measures as possible for surgical cleanliness, and the reduction of vaginal examinations to a minimum, there is probably no difference of opinion.

The greatest difference in practice of different individuals seems to exist in the use they make of sedatives or anæsthetics, and I have therefore thought it might be more useful to introduce a discussion on this subject as a whole.

As regards the use of anæsthetics in the first stage there are two extreme schools. There are, on the one hand, those who, if they carried their teaching to its logical conclusion, would in all cases give a general anæsthetic, dilate with a Bossi's or Frommer's

dilator, and deliver as speedily as possible. But the brief enthusiasm for the extensive use of these instruments seems to be waning. There is no doubt of their value in exceptional cases, but the cases are very exceptional. I have carried a Frommer around for the past two years, ever expecting to have to use it, but, fortunately for myself, and more fortunately for my patients, have so far managed without it. And I think it is now generally admitted that in an ordinary case the risks run outweigh all possible advantages of a rapid delivery.

At the other extreme we have writers like Horrocks, who reiterate the truth that labour is a physiological process, that the great majority of cases get through without interference, and maintain that in an uncomplicated case all we have to do is to examine once, assure the patient everything is all right, and then go away till one thinks it time to call again, or till the nurse summons one with the information that it is all over.

This seems to me to be going just as far to the other extreme. It is certainly bad policy. For even Horrocks himself admits that the patient is disappointed if the medical man is not there at the time. And if we adopt this procedure we will soon find that the wheezy call of the incense breathing midwife to "bear down" brings far more comfort to the patient in her trouble than the absence of the doctor on strictly scientific grounds, and that on similar future occasions our services will be dispensed with.

And this procedure is based on what seems to me to be a false assumption. These writers say that there is no such thing as a painless labour; that it is unnatural for the patient to be unconscious at the time of delivery, and, inferentially, that it is a mistake at any stage to attempt to lessen pain. It may be quite true that there is no such thing as an absolutely painless labour, but it is also true that some labours are very nearly painless, and we have just as much right to regard this as the normal as to regard it as abnormal. Speaking of an ordinary case uncomplicated by any faulty presentation or such abnormality—and all my subsequent remarks apply to such cases—there is no doubt that, as a rule, an aboriginal suffers much less than a civilised woman, and that, say, a German woman on the Murray Flats suffers much less than a highly-strung, highly educated woman in the city. And there is no doubt in my mind that the difference depends on the same factor that determines the difference between

what any woman calls a "good time" and a "bad time" in labour, viz., the stage to which labour has advanced before uterine contractions have become painful. One woman will complain of pains before the cervix has begun to be taken up; in another woman the contractions are painless till the os is fairly dilated. The difference may, in certain cases, depend on an actual or accidental shortness of the cord or impaction of the head on the pubic bone or some such abnormality, but in the great majority of cases it depends on the nervous system of the patient. And this is borne out by the fact we frequently observe that in a patient run down from recent nursing of a child or relative through a serious illness, these early pains are always much more severely felt than ordinarily.

If this is so, to take no measures to lessen pain is to stultify our profession. For there is no doubt that all our patients nowadays are so constituted that this nervous or mental factor plays a large part in the pains of the early stages of labour. In any other department of medicine we attempt to relieve pains. In a nervous dyspepsia we do not refuse to relieve pain; why should we in pains of nervous origin in labour simply because they are superadded to a process that is always attended with some pain. As the process is temporary, and an occasional one only, there is not the risk in using sedatives that we incur in other cases of pain, and there is no doubt as to the relief such treatment affords the patient and the consequent greater rapidity of convalescence.

I am quite with those writers who deprecate the too frequent and too early application of forceps, and who aim by their teachings to leave delivery to natural processes. But in my opinion that aim is more likely to be secured by the use of sedatives in the early stages than by leaving things alone. For experience shows that dilatation is hastened rather than retarded by the use of proper sedatives, so that the first stage is shortened. Further, in a long first stage the reason one is sometimes compelled to apply instruments before full dilation has taken place is because the patient is exhausted with her pains. This is less likely to occur if pains are subdued.

And thirdly, if delay is due to any disproportion between the head and the pelvic strait, one has a far better chance of the patient bearing up long enough to allow of proper moulding if she is kept from feeling the

full severity of the pains while this is taking place.

What sedatives, then, have we at our disposal for use in the first stage? General anaesthetics like chloroform are out of the of the question at this stage.

Chloral.—The one drug which all authorities recommend is chloral hydrate. There is no doubt of its great value if given in sufficient doses. The best method is to follow Playfair's plan of giving 45 to 60 grs. in 15 gr. doses at about 20 minutes intervals. The most striking cases of success with it in my experience have been in primiparae with strong and frequent pains and a rigid os. When pushed in these cases the os dilates much more rapidly than before administration. It is not so useful in more lingering cases with less frequent pains, as it cannot be pushed in the same way. Complaints about its failure are generally due to insufficient dosage. It has the disadvantage that some patients cannot tolerate it, but reject every dose.

Cocaine.—It is just 10 years since Farrar brought before the Edinburgh annual meeting the value of cocaine in relieving pains of the first stage that were ineffectual through rigidity of the os. There is no doubt, too, that this has its distinct sphere of usefulness in causing rapid dilation of the os, in cases where the lips are thin, yet rigid, after some hours of sharp, cutting pain. But to do good it needs to be applied as the originator of the method advised, viz., in 10% watery solution, swabbed vigorously and thoroughly on to both the internal and external aspects of the os. Vaginal suppositories of cocaine are ineffectual in my experience, and so are ointments. It is not fair to blame the method as a failure if applied in this way or in a weaker solution and with less thoroughness than originally suggested.

The disadvantages are that the solution must be freshly made each time, and that under the circumstances under which it has to be applied in an ordinary house it is very difficult to be sure of perfect asepsis. My experience of it, too, has given me the impression that it does not act so well if applied early, nor in those cases where delay in dilation is due to an occipital posterior presentation.

Morphia.—We used to be taught to avoid morphia in the first stage, as it lessened uterine contractions. I note that some of the text-books still take this position, and

Horrocks says it retards labour to the detriment of both mother and child. In certain cases it must lessen uterine contractions, as one gives it in cases of threatened abortion, and if the catastrophe is averted one lays the flattering unction to one's soul that this happy result is due to the opiate. On the other hand, I was struck early in practice with the fact that in certain cases where I gave an opiate in a tedious labour to produce sleep the pains almost immediately increased, so that the patient thought it had been given to bring on pains. Edgar says that it acts as a sedative in irritable conditions and as a stimulant in sluggishness, and this would account for these apparent contradictions. For myself I have never been able to convince myself that morphia has such an effect in preventing uterine contraction. If given as advised by all authorities for the so-called false pains of labour, it certainly relieves the pain, but one can still feel the normal intermittent uterine contractions of the late months of pregnancy under one's hand. And it has always seemed to me to be rather illogical to give opiates one day for these so-called false pains, which are only the ordinary contractions made painful by a loaded rectum or some mental disturbance of the patient, and to refuse the same relief for painful contractions a few days later. At any rate for some years past I have more and more used morphia in the first stage, and with increasing satisfaction. For some time I have habitually given a chloral and morphia mixture for use at night beforehand if any pains arise, and a hypodermic of morphia in the early stages if I am satisfied pains are strong and everything all right. I have found this especially useful in those cases where there has been a premature rupture of membranes with subsequent onset of rapid and strong pains when the os has barely begun to dilate. In such cases my experience has convinced me that $\frac{1}{4}$ gr. morphia hypodermically does not retard labour, but hastens it by the more rapid dilatation of the os that takes place afterwards. It is also of value in cases where eclampsia is threatened.

Hyoscine.—In the *Medical Record* of 12th January, 1907, Beechmore wrote advocating the use of hyoscine hydrobromide hypodermically in doses of $\frac{1}{16}$ gr. with $\frac{1}{4}$ gr. of morphia. He injected it as soon as the first stage set in, and says that in all cases it induced sleep, during which labour proceeded naturally without damage to mother or child. The one dose usually sufficed to maintain

sleep till expulsive pains began. After six or eight hours he injected a second dose if necessary, and in two cases where forceps were needed a third dose did away with the necessity for a general anæsthetic. For the past 12 months I have used this method in a fair proportion of my cases, and have found it the most satisfactory combination I have yet tried. I have never given more than the one dose; patients have never failed to sleep; labour has proceeded naturally, and the sleep with this one dose has lasted till well into the expulsive stage, when I have given chloroform in small quantities as usual. Perhaps a brief summary of the last five cases in which I have used it will be the best evidence of this. The first of these was a primipara, whom I saw at 10 p.m. She had had slight pains all day and the os was about the size of a sixpence. From the rate of progress I did not anticipate birth before daybreak, but after the injection I have mentioned she went to sleep; labour proceeded. I was called by the nurse again at 1 a.m.; the expulsive pains had begun; the child was delivered naturally at 2.30 a.m.; weight $7\frac{1}{2}$ lb. The next case was a most nervous woman in her second confinement. With her first child she had been in labour 24 hours, finishing up with chloroform and forceps, and was weeks getting better. This time she was dreading a repetition. I saw her at 10 p.m., with slight pains and an os the size of a shilling. I gave her the above injection; she went to sleep and slept till just before the baby (of average weight) was born at 2.30 a.m., before I could be summoned. The third case was a primipara, who sent for me at 10 a.m., before the os had begun to dilate. By 10 p.m. the os was just beginning to dilate; she was playing up and could not be controlled, and I was looking forward to a lively time. I gave her the injection and she went to sleep shortly after. I was sent for again at 5 a.m., and found the os well dilated and expulsive pains setting in well. The child was born naturally at 7 a.m. The next one was a patient in her third confinement. I had not seen her before, and she had a long tedious labour with the first, and in the second after being in pain some hours had the child delivered by high application of forceps, as she could stand no more pain. I saw her at 4 p.m., and found the os the size of a shilling; pains regular. I gave the injection. At 6 p.m. when I called she was sleeping peacefully; she continued sleeping with slight intermission till nine. By this time the expulsive pains were

marked though she was still sleeping, and at ten a child of 8½ lb. weight was delivered naturally. She had a few whiffs of chloroform at the last, but next morning remembered nothing of her pains at all. This week I attended a woman in her second confinement at whose first labour, two years ago, I had as bad a time as I ever want to. She was then in labour over 24 hours, could bear no pain, and finally I had to apply forceps high up with an imperfectly dilated os, and a resulting laceration of cervix and vagina, necessitating subsequent stitching. This time she had been complaining of pains at nights for some three weeks beforehand, for which she had had a chloral and morphia mixture. When I saw her at 10 p.m. the os was dilating fairly, but remembering her nature and her last performance, I decided not to attempt to hurry things. After the injection she went to sleep and slept the whole night. I saw her next morning at nine, found the os fully dilated and ruptured the membranes, and though I had to give her chloroform lightly to get her to bear the expulsive pains at all, a child of 8 lb. was delivered naturally at 10.30.

From a limited number of cases it is of course impossible to generalise hastily; but when one finds that although one's midwifery practice is bigger than it was, one's difficulties with regard to "rigid os" are lessening, one is bound to give some credit to the alteration in one's procedure. My experience is that ten years ago when cocaine was first brought under my notice I used to use it pretty frequently. At that time I was walking my patients about in the first stage, as recommended in the text-books, and the only drug I used was chloral, which I did not find effective in these tedious cases. For the last four years, since I have been using morphia more freely I have used cocaine much less, and for the last 12 months, since I have used hyoscine and morphia, I have not had to use cocaine once.

I should not have introduced the subject of anaesthetics in the second stage but for two cases that have recently come under my notice. One was a patient from the country suffering from marked neurasthenia, which I could ascribe to no other cause than the shock from high application of forceps without an anaesthetic at her first confinement 12 months previously. The other was from a different part of the State, who also had a high application of forceps without an anaesthetic at her previous confinement, which so affected her con-

valescence that she came to town for her next confinement. Up to this I had thought it was now the invariable practice in this State to give a general anaesthetic before using forceps. In my earlier days I have used them low down without an anaesthetic, but never again. In fact, of late years I have almost invariably given a certain amount of chloroform during the latter part of the second stage. Horrocks again says this is wrong—that it is not natural for a woman to be unconscious when the baby is born, and so on; but as she is often unconscious from the severity of the last pains she might just as well be partially unconscious from an anaesthetic, and given in this limited extent there does not seem to be the danger of post-partum hæmorrhage that is the bugbear of many writers.

For deeper anaesthesia, such as is needed for high application of forceps, I always change to ether so as to lessen the risk of post-partum hæmorrhage. It is true that Jardine says there is more risk of post-partum hæmorrhage with ether than with chloroform, but such has not been my experience. Ether has never caused me any anxiety in this respect. But certainly I think some anaesthetic should always be given in such cases. It is true that Playfair and others say it is better to give no anaesthetic than only to partially anaesthetise; but it is still better to fully anaesthetise with ether, for nowadays we recognise that even in heart cases it is safer to give chloroform to hasten the second stage than do without an anaesthetic. Why not then anaesthetise fully in all cases where instrumental interference is required?

Edgar lays down the following rules, which agree in the main with the foregoing remarks, and may serve as a basis for discussion:—1. For operations requiring anaesthesia to the surgical degree ether, unless contraindicated, is to be preferred to chloroform except in cases of eclampsia. 2. In surgical anaesthesia during labour in which the operation has been begun under chloroform, and especially in the case of anæmic and exhausted patients, ether may be substituted for the remainder of the operation with advantage. 3. For dulling the pains of labour, chloroform carefully used and carried to the extent of primary anaesthesia is both convenient and relatively safe, but when this intermittent anaesthesia is long continued it is likely to be detrimental to the foetus and injurious to the mother, and ether should be substituted. (Of this procedure I have no experience.) 4. Chloral and morphia

—especially the former—are when indicated of great value. (To these I would add hyoscine.) 5. The production of local anæsthesia by topical application to cervix is not to be advocated.

Of spinal anæsthesia in labour I have no practical experience and will leave its discussion to any member who may have employed it.

(Read before the South Australian Branch of the British Medical Association.)

NOTES ON CASE OF TOXÆMIA OF PREGNANCY.

By A. H. Gault, M.D. (Lond.), Adelaide.

M. H. (aged 22), brought by train to Adelaide in the ambulance van, and taken to a private hospital. The following history was elicited :—The patient had been married two months, and had been in pretty good health until two weeks before. There had been no vomiting or other symptom of pregnancy, except that the menses had ceased for seven months. Two weeks before coming to town, while going about as usual she had complained of severe abdominal pain, and went home to bed. Next day the temperature was 105°. She had severe headache pains and tenderness all over; no vomiting and no abdominal obstruction; the local chemist, who was called in, diagnosed rheumatic fever, and she was treated with liniments and salicylate of soda, with a small dose of morphia occasionally, when the pain was very severe. The condition remained much the same, the temperature keeping up to 102° or 103°; general pains and tenderness all over; no delirium, no special localising symptoms. As she was getting weaker she was brought to Adelaide at the end of a fortnight.

On examination, her condition was found very serious. Temperature, 103°; pulse weak and quick (140); tongue dry, brown, and coated; thirst; no delirium, but considerable mental obtuseness; abdomen distended; liver dulness diminished, and pushed upward; no enlargement of spleen; pregnancy over six months. The condition simulated peritonitis or typhoid, but there was no localised tenderness or pain, and a soap and water injection acted without difficulty. Urine specific gravity 1018, acid; dark, no sugar, trace of albumen, no bile; urea estimation gave 370 grains urea for 24 hours. Small doses of thyroid extract were given with strychnine and digitalin and saline drip. Slight improvement followed, but the pulse still remained very quick (140) and weak. Temperature, 103°. Mental condi-

tion unchanged. In consultation with Drs. Giles and Scott the provisional diagnosis of toxæmia of pregnancy was made, and it was deemed advisable to terminate pregnancy. A bougie was inserted into the uterus, and labour commenced in about 20 hours, and terminated naturally in the birth of a living male child, of apparently seven months, and weighing 2½ lb. The child died in a few hours. Within two days the temperature came down to normal, the pulse slowly improved, and the patient made an uninterrupted recovery, leaving the hospital in three weeks from the birth of the child, and now, two weeks later, is apparently in perfect health, with no albumen in the urine.

Remarks.—As in so many other similar cases reported, the patient was a primipara, and pregnant some time before marriage. This case was peculiar in the sudden onset of symptoms and the absence throughout of vomiting; the temperature was unusually high. The urea estimation did not show any marked renal inadequacy, but it is quite evident that though some cases are of renal, others are of hepatic origin and approach in character to acute yellow atrophy. In this case there was no jaundice, but there was marked tenderness over the liver and diminished hepatic area. In cases of renal origin the urea secretion is generally decreased to 150 grains per diem or less, while in cases of hepatic origin the ammonia compounds in the urine are increased, but the urea is not diminished. A more careful examination of the urine would have elucidated this matter, but unfortunately it was not made, but as several estimations for urea gave over 350 grains it is probable that the case was one of hepatic origin. The immediate improvement which followed the termination of pregnancy makes it highly probable that the diagnosis was correct.

Nursing at the Melbourne Hospital.—The salary and the tenure of office of sisters of the Melbourne Hospital nursing staff is a subject under consideration with a view of revision. It is proposed to limit the period of employment of sisters to three years, and to give the matron power in special cases to extend the tenure another three years. This, together with a scale of payment to sisters of £42 for the first year, £47 for the second, and £52 for the third year, was recommended by the house committee. Dr. McInerney suggested that it should not apply to the present staff of sisters, several of whom had been for many years in their positions, and had served well and faithfully. After further discussion the matter was deferred for further consideration.

WANTED.—A Harvard Medical Chair. Address "Harvard," this office.

VARIOUS TYPES OF INFLUENZA

By E. W. Kerr Scott, M.B., Brisbane

WE have recently passed through a recrudescence of influenza in epidemic form, which, in conjunction with the severest winter Queensland has experienced for many years, has been accountable for a higher death-rate, and has abruptly terminated several lives.

In Australia, influenza is a cold-weather disease, occurring as an epidemic in winter when people are more susceptible to chills. Dengue, which in many respects resembles influenza, is a summer disease. One must exclude from the category of influenza feverish colds or catarrhs, tonsilitis and pharyngitis, which, by causing aching bodily pains, are popularly mistaken for influenza. It frequently happens that influenza attacks a person suffering from coryza. There are various types of influenza:—

1. That which may be called the *typical form*:—(a) During the incubation which is frequently brief—a couple of hours—but which may extend over one or more days, there is a feeling of tiredness with slight back-ache and premonitory twinges of pain in some of the joints—pain which is emphasised by a joint receiving a jolt so slight that in health would cause no tenderness. (b) With or without signs of an incubation stage, the attack proper is ushered in by a sudden loss of strength, which is quickly succeeded by a feeling of chilliness or even a rigor, and a rapidly rising temperature. The sudden onset in young children is productive of convulsions. (c) The temperature rises rapidly to about 103°. Pulse is quick and considerably softened. Respiration is not hurried. There is aching pain in the back (in the lumbar muscles especially), and the limbs, pain in the smaller joints, and usually severe headache (frequently frontal, but sometimes occipital, and more rarely vertical), and soreness in the orbits. There is more or less insomnia, or else dream-disturbed sleep, and depression of spirits. In nervous temperaments there is delirium at night. The skin is hot and dry at first, but within a few hours it becomes moist. Tongue is thickly coated. Anorexia exists together with loss of the senses of taste and smell. Constipation is the rule. Professor Allbutt (*British Medical Journal*, May 6th, 1905) mentions another point of diagnosis which might be useful in obscure cases, namely, that while at the beginning of almost every febrile disease there is scanty

high-coloured and often depositing urine, in influenza the urine is not dark or brick-coloured as in "chill." (c) In three or four days the temperature by gradual descent falls below normal, and remains subnormal for several days, sometimes weeks. The pulse also becomes slower than normal. The patient considers himself convalescent. There is, however, great debility which may last a fortnight or longer. During this period of weakness care must be taken that the heart does not receive any strain through the patient unduly exerting his enfeebled strength, and he should be warned of the danger of other complications should he contract a chill.

2. *Respiratory type*.—The form of influenza in which the respiratory tract is principally affected. (1) Either before, or not until, the temperature has become normal, *catarrhal symptoms* appear. There is coryza and an uncomfortable feeling in the nasopharynx, which gradually descends to the throat and trachea. One usually finds a granular condition of portion of the mucous membrane. This is apparently the cause of an irritating, rasping, hollow cough, with very little expectoration of tenacious mucus, which in some instances is streaked with blood. The cough is paroxysmal, and its frequent repetitions wear out the patient's strength. Elderly people with weak hearts speedily succumb. The cough is so severe that one would expect to find all the physical signs of bronchitis, but in most cases nothing more than a harsh respiratory murmur can be detected. The irritation causing the cough gradually descends into the bronchi, and sometimes without one being able to give the reason it subsides almost suddenly. (2) The larynx may be the chief seat of the trouble—hoarseness and even complete aphonia resulting, and continuing for days or weeks. (3) A peculiar condition is one where, even in convalescence, there are what Goodhart has called "sharp sticky râles" at the edge of the base of the lungs in cases where the bronchioles become affected. These are probably small areas of collapsed lung. (4) Some cases of influenza are complicated by extension of the catarrhal inflammation to the middle ear, or to the frontal or ethmoidal sinuses. (5) The most severe complications of the respiratory type are *pleurisy* and *pneumonia*, occurring either together or separately. The pneumonia is occasionally croupous, but more usually it is the broncho-pneumonic or catarrhal form. On percussion there is some dulness, and on

auscultation fine and coarse râles may be heard, but there is seldom typical tubular breathing, owing probably to some unaffected portion of lung substance intervening between the inflamed area and the chest-wall. The respiratory murmur has more the character of distant or modified bronchial breathing. Several observers have remarked upon the "wandering" nature of the broncho-pneumonia; thus the lower lobe of a lung may be first affected, and the upper lobe is attacked. Pleurisy in children, complicated or not with pneumonia, frequently becomes septic, and empyema results.

Prof. Clifford Allbutt (*Brit. Med. Journal*, May 6, 1905) remarks:—"As regards the morbid anatomy, it is an inflammation of an erysipelatous type. The histology of influenza appears to be very much of the same character as erysipelas, especially in its disposition to small cell and nuclear infiltration. There is far more interstitial inflammation in influenza than in ordinary croupous pneumonia. What is more characteristic still is, that, if there be a lobar inflammation, it is almost always associated with lobular patches. Nor is it often confined to one lung. The sputum is mucous or muco-purulent, not rusty as in ordinary croupous pneumonia. The lobular form is far more common than lobar. Like phthisis, influenza may excavate. A striking case occurred in which the sputum always contained influenza bacilli with some mixed infection, but never tubercle, yet both lungs were excavated as in phthisis. The patient was for a time sadly wrecked, but ultimately got perfectly well. It is calamitous when influenza attacks a person already the subject of pulmonary tubercle."

3. *Nervous type of influenza*.—Cases of influenza which, in addition to other symptoms, have nervous manifestations. (1) In these cases *delirium* is marked, and more so at night. Hallucinations and delusions may occur, and the patient may attempt to escape. As a patient cannot be considered responsible for falling out of a window or from a balcony, rigorous watching must be insisted upon in delirious cases. (2) Cases of influenza in which delirium passes into *insanity*. It occurs at the beginning of the convalescent period of the influenza attack, about a week after its onset. The patient manifests all kinds of delusions. He may refuse food because he imagines it contains poison; and perhaps he imagines his doctor and nurse are in league to do away with him. He may attempt to

commit suicide, and even become murderous. Inveterate insomnia accompanies it, and may be the immediate precursor of the attack of insanity. In these cases paraldehyde gives more satisfaction than bromide and chloral. Fortunately the insanity is of short duration. At its onset one is much tempted for lack of proper control to certify him as a fit inmate of the reception house. (3) "*Cerebral influenza*": A form dealt with in an address by Prof. Robert Saundby, of Birmingham, published in the *British Medical Journal* of June 6th last. It is a condition in which symptoms of meningitis or encephalitis occur, causing various degrees of aphasia, paralysis, coma and other manifestations, in the convalescence of even slight attacks of influenza. The nearest approach to this form seen by the writer in the recent epidemic, was one of intense headache with photophobia and vomiting, lasting three days. Another patient had numb feelings in the limbs for two days without any muscular paralysis. (4) Patients with chronic nervous complaints are much distressed by influenza. For example, a patient with paralysis agitans on contracting influenza was tortured by an exaggeration of the spasmodic movements, and begged for sleep. He proved obstinate to three drachms of bromide a day, with a draught of paraldehyde 2 dr. and trional 15 gr. at night. Drowsy rest only for about three hours was the result. (5) *Neuritis and neuralgia* occurring in the convalescence of influenza are sometimes severe. The intercostal nerves are most often affected. Peripheral neuritis was perhaps the cause of weakness of the diaphragm in a patient with a sound heart recently, who was afraid to lie down owing to a great sense of smothering caused by the recumbent position. (6) *Sweating* as a sequela of influenza is no doubt due to nervous debility. It is sometimes excessive and may last for several weeks after the attack, even in spite of special treatment. There is no elevation of temperature; it usually remains subnormal.

4. *Cardiac type*.—Influenza affects the heart considerably, causing (like diphtheria) great cardiac debility and sometimes cardiac failure. If for no other reason, that is if the attack is uncomplicated, it is because of the probable effect upon the heart that a patient with influenza should be kept in bed. Dr. John Cowan, of Glasgow, in contrasting influenza with acute rheumatism, writes to the following effect in the *Practitioner*, January, 1907:—"Acute rheumatism affects

the endo- and peri-cardium, and the cardiac danger is, on the whole, remote rather than immediate. Influenza does not affect the endo- or peri-cardium, except rarely, but attacks the myocardium; and the cardiac danger in influenza is immediate rather than remote. Patients with fatty heart and alcoholics bear influenza badly." Influenza has caused sudden death, not only in elderly patients, but also in young. For instance, a lad of 11 years, who had always been considered strong (he certainly had no cardiac lesion), came to my consulting-room suffering from gastric influenza, and died suddenly early the following morning of heart failure.

5. "*Gastric*" Influenza.—Cases of influenza with special symptoms centred in the alimentary canal. These are: Vomiting, more or less severe, with or without diarrhoea. In some instances vomiting is succeeded by diarrhoea. Enteritis may be followed by peritonitis. Some intestinal cases exhibit abdominal tenderness lasting two or three weeks, with continued pyrexia, which arouses in one's mind the suspicion of typhoid fever. Jaundice has occurred in a few cases. Appendicitis is an occasional complication, and so is gastro-ectasis (*vide* Dr. Norman Dalton, *Practitioner*, Jan., 1907).

6. *Rheumatic type*.—Influenza occurring in patients of rheumatic diathesis causes severe muscular and joint pains with prolonged fever, but without swelling of the joints, as in acute rheumatism. They require to be strictly confined to bed, between blankets, and liberal treatment with acetyl-salicylic acid (better known by the patented name "aspirin") or with the salicylates.

Skin eruption in influenza.—Some cases develop a rash. Those the writer has seen have been mild cases of influenza in children, in which on the second day a blotchy or measles-like rash has appeared on the thighs, buttocks and over the sacrum, and sometimes on the forearms. The rash lasted for three days, did not spread, and caused no irritation.

Bacteriology.—A few words on the bacteriology of influenza extracted from an article by Dr. d'Este Emery, *Practitioner*, January, 1907. In 1892 Pfeiffer discovered the "bacillus influenzae." It is a very small rod, measuring in length one-sixteenth the diameter of a red blood-corpuscle. It is supposed that the germ secretes a toxin which enters the system and causes an intoxication by poisoning the nerve and muscle fibres in different parts. It is associated, however,

with other organisms; the chief of these are micrococcus catarrhalis (a diplococcus discovered by Seifert in 1896), pneumococcus, and streptococcus. Soon after its discovery the micrococcus catarrhalis was found by Pfeiffer in conjunction with his bacillus in the lungs of children suffering from influenzal broncho-pneumonia. Since then it has gradually become well-recognised as a cause of numerous forms of inflammation of the respiratory tract, varying from mild catarrh to severe broncho-pneumonia. It therefore seems that influenza is not a single disease, but "a group of diverse diseases due to various bacteria." Dr. Emery concludes by stating that the only possible satisfactory solution (but which is absolutely hypothetical and unsupported by any evidence) is that influenza is a specific disease due to a definite single cause, but that this cause is undiscovered and perhaps unsuspected.

Prophylaxis.—(1) By isolation of patient for 10 or 14 days, in order to prevent the spread of infection to others. (2) By drugs. Aspirin in 3 gr. doses three times a day has been taken by a friend of the writer who is prone to catch influenza and who has been freely exposed to the infection. He has escaped the disease this winter. Quinine in small doses is also recommended as a preventive. Resorcin for spraying the nose and naso-pharynx and quinine for gargling the throat and mouth is recommended by Dr. Ford Anderson (*British Medical Journal*, May 6th, 1905). Huchard advises the use, in gargle or spray, to throat, nose and mouth of weak solutions of corrosive sublimate (1 in 2000) or carbolic acid (1 in 200).

Treatment.—Confinement to bed in a well-ventilated room, which in cold weather is warmed by a fire in an open fireplace. Nourishment to consist of liquid and light foods. Oil of cinnamon in 10 m. doses every two hours at the onset of an attack is said to act as an abortive. Phenacetin gr. 5 with caffeine gr. 2 in powder is given every four hours until the headache is relieved. A simple expectorant of potass. citrat., vin. ipecac. and spt. aeth. nit. is prescribed for the cough; bismuth for the gastric forms. Should granulations appear in the wall of the pharynx inducing the irritating cough, the throat is painted regularly with weakened glycerin acid carbolic, and vapour medicated with tinct. belladonna and tinct. benzoin co. is inhaled. Should the tracheal cough be unrelieved, tr. chloroform *et* morph. co. and liq. ammon. acetatis are added to the expect-

torant mixture. Or a splendid mixture is that recommended by Burney Yeo in his *Manual of Treatment*, consisting of apomorphine and morphine in solution with dilute HCl, syrup and water.

As soon as the distressing symptoms have been overcome, a tonic of quinine, strychnine and iron will, with a liberal dietary, restore the patient's strength. A change of air is also recommended. Burney Yeo advises the use of quinine as soon as the initial pains subside. He considers it an antitoxin of influenza. He states that if the practitioner gives it unskilfully and incautiously, or too soon, he will often be tempted to discard it as unsuitable. He considers the best and most efficacious way of giving quinine is in small, frequently repeated doses, in combination with citrate of potash and ammonia in an effervescent mixture. To thin the tenacious bronchial secretion of bronchitis and broncho-pneumonia, a mixture containing ammon. chlorid, ammon. carb. and sodii bicarb. with senega, taken in hot water, is required. Cardiac debility requires careful treatment. Strychnine, iron and quinine (or arsenic if quinine is not tolerated) is a good combination. Phosphorus, zincophosphide, hypophosphites and glycerophosphates are all useful. In cases of heart failure, camphorated oil (1 in 10) injected subcutaneously in 10 to 15 minim doses is recommended.

(Read before the Queensland Branch of the British Medical Association.)

REVIEW AND NOTICES OF BOOKS.

SYPHILOLOGY AND VENEREAL DISEASE. By C. F. Marshall, M.D., F.R.C.S., formerly House Surgeon to the London Lock Hospital, Surgical Registrar to the Hospital for Sick Children, Great Ormond-street. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 10s 6d net.

At the present time this work probably is the most complete and up-to-date presentment of venereal disease by any British author. The subject matter is dealt with in a full, clear, and convincing manner. It reflects also the teaching of the greatest authority in France on the subject—Fournier.

The part played by the *spirochæta pallida* is fully set forth, and the recent observations of Metchnikoff on the experimental syphilis of apes and the use of calomel ointment as a preventive to recent infection are likewise described.

The various methods of treatment receive full attention, and the advice given is just, sane, and practical.

The pages devoted to syphilis of the third generation are worthy of close attention, and persuade the readers from the more comforting faith which most of us learned from Jonathan Hutchinson.

The author seems rather easily to accept evidence laying the blame of syphilis as the cause of essential epilepsy—a conclusion at present with which a large section of the profession will not readily accept.

The chapters on gonorrhœa are excellent, and are absolutely good teaching throughout.

In small compass this book contains full information on both the common and rarer manifestations of venereal disease.

The illustrations are very few, only the spirochætae and the organisms met with in the urethra. The value of the work is so high and so well fitted, small as it is, to be used as a work of reference, that the reader will regret that good illustrations of syphilitic lesions do not find a place in its pages. We say good illustrations advisedly, for crude, coarse pictures, such as disfigure Keyes' excellent manual, are worse than none at all. No writers on syphilis have approached the living interest which Fournier and Jonathan Hutchinson impart to their works by the narration of the histories of carefully observed cases and their matured comments upon them. Nevertheless, this book, though not without faults, stands high in value and practical usefulness as a reliable definite guide in the diagnosis and treatment of syphilis and gonorrhœa.

SYPHILIS: A TREATISE FOR PRACTITIONERS. By Edward L. Keyes, M.D., etc., Clinical Professor of Genito-Urinary Surgery in the New York Polyclinic Medical School and Hospital, etc. New York and London: D. Appleton & Co. Price, 21s net. Sydney: Angus & Robertson.

This book is really an excellent monograph on venereal diseases. It represents a long and varied experience of these maladies, culled from the private practices, for the most part, of three distinguished American surgeons, for the note books of Van Buren, as well as those of the elder Keyes, have been utilised.

It is not indeed written in a very interesting style, yet the matter is sound, true, and up-to-date. Of illustrations there are many, both photographs and coloured plates. So far as the former are capable of depicting rashes and eruptions they are no doubt as good as can be produced, though they fall short of being wholly satisfactory. The coloured plates, with few exceptions, are coarse and crude, even exaggerated, and are unworthy of the excellent text of the treatise. However, taken as a whole, there is much to praise and not a great deal with which to find fault. As a full complete presentment of our present knowledge of the subject this book certainly commands the respect and trust of those who may consult it.

SYPHILIS IN THE ARMY. By Major H. C. French. R.A.M.C. London: John Bale, Sons & Danielsson, Ltd. Pp. 126. Price, 6s net.

This book is intended to show the detailed working of a preventive medicine problem in the army. There are chapters on the causation of syphilis and its influence on military service, prevention, and treatment, with 41 appendices. The author seeks, and we think effectively, to prove that preventive measures have been successful in India.

Fortunately among the troops in the Australian Commonwealth syphilis does not cause any great amount of unfitness for duty, and such measures as those advocated by the author are unnecessary here.

The work represents an immense amount of painstaking labour, and is a valuable contribution to the subject.

ELECTRIC IONS AND THEIR USE IN MEDICINE. By Professor Stephani Leduc. London: Rebman, Limited. Price, 2s 6d net.

This little volume has been translated by R. W. Mackenna, M.A., M.B., Ch.B. (Edin.), Physician to the Liverpool Skin Hospital, who has taken the opportunity of presenting this monograph in an English dress. Professor Leduc is recognised as the distinguished pioneer in connection with Ionic treatment, and more recently the work has been popularised by Dr. K. Lewis Jones in particular.

The six sections of the volume deal with (1) Osmotic Pressure, (2) The Ions, (3) General Theory of Electricity, (4) Electrolysis of Living Tissues, (5) Electrolytic Treatment, (6) Electrolytic Treatment of Cerebral Affections and Neurasthenia.

It is claimed that one of the most constant actions of electrolytic treatment is the resolving influence on sclerosis and cicatricial formations of a kathodal stream of a solution of sodium chloride, whereby joints completely ankylosed rapidly recover their mobility without forced movements or pain. An appendix is added by the translator dealing with special diseases and their treatment, and this enhances the value of the work. Ionic medication is only in its infancy, as there are numbers of substances whose ions have not been employed in the treatment of disease, and thus we see a vast field lies open for patient research. Anyone interested in this subject will be well repaid by reading this book.

THE MEDICAL ANNUAL: A Dictionary of Materia Medica and Therapeutics, with a review of Therapeutic Progress 1907. By F. J. Charteris, M.D. Bristol: Messrs. J. Wright & Co. Price, 8s 6d.

The twenty-sixth issue of the Medical Annual for the year 1908 fully maintains the reputation the work has obtained during that lengthy period. Each year progress is made, and all that is likely to prove useful to the medical and surgical profession is recorded. The present volume deals with the examination of the blood and the arterial pressure, the determination of the opsonic index, the microscopic examination of the faeces, artificial inflammation (Bier's method), tuberculin reaction, and a mass of other subjects. The book consists of 663 pages of reading matter, has 30 plates, some coloured, and 137 text illustrations, besides a list of the year's books and other material of interest to the medical practitioner. The author's aim is stated to be to make the Annual a work that is never consulted in vain, and this twenty-sixth issue appears to come up to that ideal.

DISEASES OF THE NOSE AND THROAT. By Herbert Tilley, B.S. (Lond.), M.R.C.S. (Eng.). London: H. K. Lewis. Price, 14s net.

This is the third edition of De Havilland Hall and Tilley's book on the Diseases of the Nose and Throat.

Dr. Hall having retired from the joint-editorship, Dr. Tilley has carried on the work of producing this very successful book alone, and there can be nothing but praise extended to him.

The illustrations, which number 126, do not so much illustrate instruments as anatomical or pathological points, or the details of various operations.

The section on the accessory sinus diseases, as would be expected from this author, is very full and well worth reading. Altogether the book is worthy to be on the shelves of every specialist or practitioner who is interested in these subjects.

PLAGUE IN QUEENSLAND.

The Commonwealth has by now accumulated no inconsiderable mass of literature on the subject of plague, and we venture to point out, with a feeling of some complacency, that much of what has been put forth here may be described as epoch making. The latest addition to the work is the Report of the Queensland Commissioner of Public Health, Dr. Ham, on the disease, as it has manifested itself in the northern State during the years 1900-1907.

Dr. Ham's report, which is issued by the Queensland Government Printer, runs into 166 folio pages, with several maps and charts. It contains besides the necessary tabular and statistical information, matter which is of much interest in the epidemiological study of plague and the problems which arise in connection therewith. The conclusion which emerges pre-eminently from the whole is the dependence of epidemic plague upon previous epizootic plague among the rat tribe, and the linking together of the two by the intermediary of the flea. Rat mortality was invariably discovered in every indigenous centre of plague throughout Queensland, the rise in rat infection always preceding the manifestation of the cases in man. These phenomena were observed year after year. As in New South Wales, so in Queensland, there was no evidence or even suggestion that human beings communicated the disease (excepting the rare pneumonic form) one to another directly, nor by the interchange of goods, clothing or other articles.

Seasonal incidence of plague in Queensland followed pretty closely on the lines observed in New South Wales. In both States the epizootic and epidemic periods extended, in broad terms, from about the end of January to the beginning of August, and tended to show a maximum during the months of April and May. Dr. Ham considers that the seasonal variation observed in Queensland bore a definite relation to the prevalence of the rat-flea, and points out that during an epidemic of plague, little difficulty was experienced in collecting fleas from rats, but that rats appeared to be exceptionally free from fleas during the non-epidemic period. This observation is quite in accord with corresponding observations in other places. (Reports on Plague Investigations in India and Reports of the Board of Health on Plague in New South Wales.)

Some evidence is brought forward by Dr. Ham in connection with the suggestion that the prevalence of plague in Australia is in relation to the distribution of *Pulex cheopis*, the particular rat-flea, which in India is regarded as closely connected with the transmission of plague. This parasite is the prevalent rat-flea of Sydney and of the Queensland ports, but appears to be the least prevalent in Victoria, Tasmania, and New Zealand, in which places plague has never succeeded in obtaining a footing. The preponderating rat-fleas in these latter places belong to two other varieties of the siphonaptera.

In discussing the possible subsidiary action of the bed bug as a carrier of plague between the rat and man, Dr. Ham refers to the experiments of Nuttall, which he regards as having settled the question in the negative. In view of the positive results obtained by Verbitski, however, lately published in the Reports on Plague Investigations in India, Nuttall's conclusions must now be held to be erroneous, and the bug regarded as a possible, if minor, factor in the transmission of plague.

Dr. Ham is to be congratulated upon his valuable contribution to the epidemiology of plague.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 21st SEPTEMBER, 1908.

THE PROFESSION AND THE PUBLIC.

It is significant of the trend of medical thought in America that two important addresses delivered at the annual meeting of the American Medical Association in Chicago in June of this year dealt with the duties and responsibilities of the medical profession towards the public.

Dr. BURRELL, of Boston, the President of the Association, in his Presidential address at the opening of the meeting, spoke on the "New Duty of the Medical Profession: the Education of the Public in Scientific Medicine." He referred to the fact that while in olden times a veil of mystery surrounded the practice of medicine, to-day with the great advances in scientific research, in medicine, and the wider general dissemination of scientific knowledge, the duties and responsibilities of the practitioners of medicine have increased. He considers it the imperative duty of the profession at the present day to be active in the education of the public in medical subjects, and that without the intelligent co-operation of the public our work cannot be fully effective. He illustrates this by the work already accomplished in the controlling of tuberculosis, ophthalmia neonatorum and scarlet fever. He might have well added the great advance which has been made in the control of the epidemics of smallpox, which has resulted in the saving of thousands of lives. As a profession we cannot be too insistent in emphasising the immense importance of vaccination, and teaching the general public year in and year out, by reference to past history and even present-day

experience, that efficient vaccination is the only safeguard of a community against decimation by a virulent disease. The co-operation of the public, too, has resulted very largely in the diminution of the epidemics of plague. The instructions conveyed by our bacteriologists and epidemiologists have not been lost upon the general public, and to-day it is matter of common knowledge by every layman that destruction of rats means diminution in the risk of dissemination of plague. These are well-known illustrations of the principle which Dr. BURRELL advocates. He would have us write articles for the daily newspapers and magazines, setting forth in authoritative terms the important facts of disease, specially infectious diseases, but withholding any reference to treatment; these articles not to be written haphazard by anyone who might feel himself called to do so, but by experts under the authority of the Board of Public Instruction. Free lectures to the public on selected medical subjects, given under the auspices of medical associations or universities, are also important methods of spreading information of immense value to the general public.

It might be argued that as a little knowledge is a dangerous thing, it is inadvisable that an attempt should be made to educate the general public in subjects which can only be fully understood by a scientifically trained mind; but it is clear from experience that the greater the amount of knowledge and the clearer the conception the public have of disease, the more certain they will be to rely more and more on the profession to assist them in their combats with disease.

Dr. W. SYDNEY THAYER, of Johns Hopkins Hospital in Baltimore, in the course of his oration in Medicine at the same meeting, on "Some Relations of the Physician to the Public," spoke of the duties and opportunities which are afforded the profession at the

present day for taking an active and important part in public life, in aiding our legislators in matters affecting the public health, and showed what may be accomplished in modern political life by a man with a medical training by a reference to M. CLEMENCEAU, the Prime Minister of the Republic of France. He referred also to the large amount of ignorance in medical matters which prevails amongst even educated people, and which shows itself in various ways in preventing the accomplishment of much useful work in preventive medicine. A really intelligent (?) citizen residing in a most malarious district said: "This is a healthy enough place—the trouble with the people here is that they take too much quinine; if they would stop taking quinine they would stop having malaria!"

On a par with the intelligence (?) of this citizen we may place that of the anti-vivisectionist, or the conscientious (?) objector to vaccination. It is clearly our duty and responsibility to eradicate these false notions, and to urge upon our patients and their relatives the importance of co-operation in combating the spread of preventable infectious diseases. "The education of the public can be accomplished only by us; and it is our duty privately, publicly, day in and day out, to explain to the people the rules of self-protection. The faithful performance by us, as physicians, of the necessary measure of prophylaxis in every individual case is almost the corner-stone of the edifice."

"THE DEATH SENTENCE."

ONE of the most striking pictures exhibited this year at the Royal Academy in London is that painted by Hon. JOHN COLLIER, called "The Death Sentence." The artist shows the effect produced upon a young patient by the pronouncement of his doctor that he is suffering from an incurable disease, and much criticism has been expended upon the paint-

ing. Dr. MAYLARD has raised the question: "Does or does not the subject presented indicate the right attitude of a doctor in relation to his patient?"

It is well recognised that a medical man is often placed in a situation of extreme difficulty when he ascertains that a patient who has consulted him for the first time, or who may have been under his care for some time, is suffering from an illness or disease which he believes to be incurable. And his position is often aggravated by the importunity of the patient's friends, that at all costs the truth must be kept from him, and by the importunity of the patient himself that he should be told the whole truth.

The diagnosis of disease is often a matter of extreme difficulty, and as our prognosis must be based mainly on an accurate diagnosis, it is obvious that in many cases our prognoses are liable to serious error. To take a very familiar illustration: We diagnose the existence of pulmonary tuberculosis in a young subject. Our diagnosis may be confirmed by the discovery of tubercle bacilli in the sputum or by the reaction of the patient to the injection of tuberculin. We make a careful physical examination of the chest, and ascertain the existence of certain physical signs, which lead us to diagnose the existence of slight tubercular deposit. Taking into consideration the youth of the patient, and the early stage of the disease, we give a favourable prognosis, but to our dismay we find that the patient goes down hill steadily and surely, and dies from a rapid dissemination of the disease. The converse is also familiar to us: the patient who presents signs of the disease fairly advanced, and upon whom we pronounce the death sentence, to our astonishment begins to mend, and again our prognosis is wrong. Why these errors? Because, although our diagnosis of the existence of pulmonary tuberculosis is perfectly correct, it is only after all a partial diagnosis, and the

prognosis must depend upon other factors which we are not always able to gauge. The virulence of the infection, the degree of resisting power of the individual tissues, the response to treatment, must all be considered before we can arrive at a true prognosis, and unless we know these details we have no right to pass a death sentence upon any sufferer from pulmonary tuberculosis. Precisely the same holds good in regard to many other diseases. The remarkable recoveries which ensue in cases of cancer pronounced incurable, and which remain permanently free from the disease after early operation, should make us hesitate to condemn any patient suffering from the disease to a certain death in a short time. Still more remarkable are the recoveries of patients who have presented all the classical symptoms of cerebral tumour—a disease which we must consider of the gravest import.

But enough has been said to show that even in cases of disease which are usually considered incurable, nature sometimes asserts its power of driving back the invading enemy, and we must, therefore, be most guarded in pronouncing the death sentence in any case, no matter how hopeless the outlook may appear to be.

There is, however, another side to the subject, and it is implied in Dr. MAYLARD'S question. We must recognise the value of a hopeful attitude on the part of our patient as a most important factor in fighting disease, and we must ever be on our guard against depressing the spirit, or damping the ardour of a patient, however ill he may be, and however hopeless the outlook may be. For even though that spirit of hopefulness cannot cure an incurable disease, yet it may help a patient very much in enduring pain or suffering. And unless there be some special reason for telling a patient the worst news about his illness we shall in most cases do best by falling in with the wishes of the friends and withholding the death sentence.

THE MONTH.

Expert Medical Evidence.

Apropos of our recent editorial article on this subject, it is interesting to learn from the *Transvaal Medical Journal* that the Natal Branch of the British Medical Association (Pietermaritzburg Division) suggests to the Council of the Branch the following amendments *re* medical evidence:—1. The appointment of a medico-legal expert to advise the Law Department prior to the trial of serious criminal offences involving medical evidence. 2. When medical evidence is conflicting, the appointment of medical assessors to advise the Court. 3. That medical witnesses should not sit by and prompt counsel in court, but should act strictly as witnesses. In commenting upon these recommendations, our contemporary remarks:—"It is an absolute scandal both to the legal and medical professions that medical evidence can be abused in the way in which it frequently is in the courts of law. There is hardly a case in which a given number of reasonable and honest medical men cannot draw up a joint report and draw it up unanimously. The prompting of counsel is inevitable under the present arrangement when medical witnesses are subpoenaed on behalf of either party to an action. Medical witnesses should be subpoenaed to assist the judge to form a correct estimate and not on behalf of the litigants. In the event of any difference of opinion let there be a minority report. In a celebrated medical case tried here some time ago the judge animadverted very strongly—and in our opinion very justly—upon the prompting of counsel. Another not unusual procedure which is derogatory to the self-respect of any decent medical man is the preliminary submission to the medical witnesses of a written series of questions with the appropriate answers thereto. These are usually drawn up by the medical man who is to coach counsel for his side and without any idea of affording the Court the truth, for which it will search in vain."

Anti-Quackery in New Zealand.

In a recent address on "Some Sidelights on Quackery," at Timaru, Dr. Mason, chief medical officer of health of New Zealand, said very much was heard nowadays of the evil influences of the Maori *tohungas*, but the younger *tohungas* were merely the medicine men of the Maoris who had forgotten the medicine and remembered only the incantation. The older men were herbalists skilled

in the use of the herbs to be found in New Zealand. While the Legislature had passed an Anti-Tohunga Bill, an Anti-Quackery Bill was not allowed to become law. All that they had succeeded in doing in this direction was to get an amendment to the postal regulations adopted, whereby the Postmaster-General was empowered to refuse correspondence to or from persons professing to cure sexual diseases. By virtue of this regulation there had been effected much of the work that he had set himself, and as a result of it there were in New Zealand to-day fewer of those human leeches than in any other country in the world. After dealing with many of the quack remedies largely advertised, and showing that in many cases the individual who advertised one nostrum was identical with the proprietor of several others, Dr. Mason said "he had nothing to say regarding the commercial immorality of these people, for if a man cared to pay for his medicine five or six times more than he need, that was his own fault, but what he desired to do was to suppress the leeches who disturbed the minds of the boys and girls, the young men and the young women. All the newspapers of any standing throughout the Dominion had agreed to withdraw the advertisements of these people, and at the present time the press of New Zealand was the cleanest of any country in the world. At the last meeting of the newspaper proprietors it was decided to refuse the renewals of contracts for such advertisements." Yet in the one column of the newspaper, adjacent to that containing the report of Dr. Mason's address, we find advertisements of five quack medicines and preparations, some of which have recently been shown to be practically worthless for the diseases for which they are advertised!

Friendly Societies in Victoria.

The annual report of the Actuary for Friendly Societies in Victoria has been presented to Parliament. It contains a brief history of the establishment of friendly societies and an interesting summary of the work of these useful institutions during recent years. From it we learn that the growth of friendly societies in Victoria is remarkable. In 1897 the total membership was 84,567; in 1907 it had grown to 123,443, an increase in ten years of 39,000 members. In 1906, 5005 were added to the membership, and in 1907 the increase was 6681. The funds had increased in the same ten-year period from £1,190,533 to £1,793,186. The membership of female societies which have sprung up during

recent years is set down at 7545, with funds amounting to £17,144. The amount paid out by friendly societies from 1878 to 1907 in sick pay was £2,644,233, in funeral benefits £583,130, and in medical benefits for wives and children £2,502,927. The funds—£1,793,186—are well invested, the sick and funeral funds averaging 4.02 per cent. for the year 1907. The number of members of friendly societies who received sick pay in 1907 was 23,427, or 24 per cent. of the total effective membership. The duration of sickness was equal to 47 days per sick member. The amount of sick pay disbursed was equivalent to £1 5s 10d per effective member, and to £5 7s 8d per claimant. The average rate of sick pay per week was 13s 8d. The sick funds of the various societies are being subjected to a heavy strain, owing to the large number of young members declaring on the funds. In reading over these figures one cannot help wondering how many of these members belong to the poorer classes, and so are really deserving of medical benefits at lodge rates. We know, of course, that in Victoria the A.N.A. is one of the largest of the friendly societies, and from what we know of that hybrid organisation we may be quite sure that the larger proportion of its members do not belong to that class of the community for whom friendly societies were originally founded and intended. The comment of the actuary that many young members belong to two societies and draw £2 a week sick allowance, and that closer supervision should be exercised in order to exclude all but genuine cases from the sick pay list, does not speak too well for the amount of honesty among the members.

Chemists and Prescriptions.

A case which has recently occurred in Sydney points, we think, the important moral that no chemist should under any circumstances dispense a prescription presented by a customer unless that prescription bears the signature or the initials of some qualified practitioner known either personally or by repute to the pharmacist. The facts of the case as elicited at the inquest are these:—A married woman, 38 years of age, lately living at Marrickville, died at the Royal Prince Alfred Hospital, Sydney, on August 3rd. The evidence showed that deceased had been suffering for some time from rheumatism. Some months ago her husband received a prescription for a certain medicine, which he was informed was good for rheumatism. He had the prescription made up, and deceased took

several doses of the medicine, but became ill, and she was removed to the Marrickville Cottage Hospital, where she remained for several weeks. She was anxious to return home, and was permitted to do so at the end of five weeks. Dr. Lawes continued to attend her, and after she returned home she had an attack of neuritis, and she was removed to the Prince Alfred Hospital, where she died. Dr. Lawes stated that after reading the prescription he was of opinion that deceased was suffering from arsenical poisoning at the time he attended her. The second and third items on the prescription contained arsenic, and he was of opinion that deceased had taken 2½ grains of arsenic before he attended her. The post-mortem examination of the body showed death to be due to exhaustion following on nerve disease, brought about by arsenical poisoning. A man named Jennings stated that he handed the prescription in question to deceased's husband in May last. He got the prescription from the chief mate of a steamer of the British India Company, about four years ago, when he was on his way home from India. Witness took two bottles of the medicine himself. The prescription was not signed by any medical man. The Coroner found that death was due to arsenical poisoning, caused through taking doses of medicine containing larger quantities of arsenic to the dose than could safely be taken by her. He added that chemists should be more careful in making up prescriptions which contained poison of any kind, especially in dangerous doses. We have been informed that two or three pharmacists declined to dispense this prescription, but finally it was dispensed at a drug store. A pious rider by the Coroner we think hardly meets what amounts to criminal negligence on the part of some dispensing chemist.

Medical Inspection of School Children in New South Wales.

The medical inspection of school children has come to be recognised now as a most important factor in the prevention of the spread of infectious diseases, and of securing the fullest possible amount of benefit for the children from their attendance at school; but it must take some years before the full return of those benefits can be recognised in the community. Meanwhile, it is interesting to learn of the progress and success of this practice in different centres. From the report of the Minister for Public Instruction in

New South Wales we learn that up to the end of last year there were about 1500 cases in metropolitan schools where medical treatment had been advised by the medical inspector. Of these cases by far the majority consisted of defective eyesight and nasal obstruction. In addition to such cases many more pupils were found defective, but as they were already under the care of medical men or wore suitable glasses the parents were not notified. At the end of the year about 20 per cent. of the children who received notices from the doctor had acted upon them. There is good reason to think, however, that many more have since done so. It has been suggested that the cost of medical attendance operates in many cases as a deterrent, but we think it more likely to be carelessness and ignorance on the part of the parents which prevent them from acting on the advice of the school medical inspector. With the abundant hospital facilities nowadays, no one can honestly make the cost of medical attendance an excuse for neglect.

Care of Consumptives in Victoria.

The question of providing additional accommodation for patients suffering from pulmonary tuberculosis in an advanced stage has again been made the subject of representation to the Victorian State Government by Dr. Norris, the chairman of the Victorian Board of Health. He has pointed out that the metropolitan councils have considered the question of accommodation in invalid homes, as distinguished from sanatoria. There are at present about 120 beds available for this purpose, and at least another 100—and probably 150—are required. Should the councils determine to provide an institution or institutions for such patients, the Government, under the Health Act, is liable for half the cost. It is therefore necessary to consider whether it would not be preferable for the Government itself to establish such an institution, and to arrange with the councils concerned for the admission of patients on the basis laid down under the Health Act. If the Government approves of the proposal, he suggests that the management should be vested in a board of five members, two representing the councils and two representing the Government (such as the Inspector of Charities and the chairman of the Board of Public Health), with the Minister of Health as chairman. Dr. Norris' report is to be considered by the Cabinet.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A CLINICAL evening was held on Friday, August 14th, 1906; Dr. G. H. Abbott (president) in the chair. There were 29 members present.

Dr. THOMAS FIASCHI read reports on—(1) An ingenious artificial leg made by a patient for his own use. (2) Spleen and liver of a fatal case of Banti's disease operated by splenectomy. (3) Two cases of perforated duodenal ulcer.

A discussion ensued, in which Drs. Macdonald Gill, Hinder, Binney, Charles MacLaurin, Sinclair Gillies, P. Fiaschi, J. B. Nash, Stacy, Flashman, Mills, C. W. Reid, took part. Dr. Fiaschi replied.

Dr. S. SHELTON reported a case of intestinal obstruction due to Meckel's diverticulum.

Dr. T. S. KIRKLAND exhibited two cases illustrating the effects of Kilian's operation upon the frontal sinus.

Dr. HINDER reported a case of cerebral hæmorrhage.

Drs. Binney, P. Fiaschi, Crago, Corlette, Flashman, Stacy, C. W. Reid discussed the case. Dr. Hinder replied.

A MEETING of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on August 28th, at 8.15 p.m.; the president, Dr. G. H. Abbott, in the chair. There were about 40 members present.

The PRESIDENT announced the election of the following new members:—Dr. Mervyn Archdall, Sydney Hospital; Dr. Hans Muller, Albury; and the following nominations for membership:—Dr. Edward J. Day, Nyngan; Dr. Royle N. Wawn, Cowra; and Dr. Mary Booth, of Sydney.

Dr. HINDER, Medical Secretary, read for Dr. Doak a paper on the "Signs and Symptoms of Appendicitis." (See page 463.)

Dr. F. P. SANDES exhibited several lantern slides illustrating the development and morphology of the vermiform appendix.

Dr. W. CHISHOLM read a paper on the "Operative Treatment of Acute Appendicitis." (See page 467.)

Dr. HINDER made some remarks on the "Causation of Appendicitis." (See page 466.)

Dr. MAITLAND agreed with nearly all that had been said by the speakers, and he was particularly pleased with Dr. Chisholm's paper, which he thought dealt with the subject on strictly surgical lines, and he himself adopted the technique advocated by Dr. Chisholm. With regard to the incision in the sheath of the rectus advocated by Dr. Chisholm, he personally preferred the gridiron incision, because that was further out over the colonic area, the area of least danger to the peritoneum, and further, because in making the incision in the sheath of the rectus there was danger of cutting the nerves to that muscle and so favouring the development of hernia. As regards Dr. Hinder's remarks on the infrequency of foreign bodies as a cause of appendicitis, he would refer to the diagrams just shown by Dr. Sandes, and considered that the cases in which foreign bodies were most frequently found in the appendix were those in which the appendix came off from the end of the cæcum as a funnel-shaped

prolongation, and in two cases recently of this nature he had found shot.

Dr. STEWART MCKAY considered that operations for appendicitis were done far too frequently. In the female one had to differentiate appendicitis, ovaritis and colitis. He considered that many cases operated on for appendicitis were really cases of colitis; and he further considered that the cirrhotic ovary was a cause of chronic pain in the right iliac region which simulated appendicitis. As regards the technique of the operation, he agreed with Dr. Chisholm and used drainage. He used iodoform gauze and closed the wound accurately. In about 48 hours he removed the gauze drain and inserted a tube, and thus he felt sure one averted a great deal of after trouble.

Dr. P. FIASCHI referred to some statistics bearing on causation of appendicitis by foreign bodies, and stated that Moynihan was one of the strongest advocates in England for the adoption of Murphy's (of Chicago) method of operating.

Dr. TAYLOR YOUNG referred to two cases he had seen. In one there was a history of five or six attacks of pain considered to be due to appendicitis, but which subsequent operation proved to be due to the twisting of a hydro-salpinx. The other case was a left tubal pregnancy in which the left Fallopian tube had been drawn across and fixed to the appendix on the right side.

Dr. STACY did not agree with Dr. Hinder as to the causation of appendicitis being most frequently congenital stenosis of the orifice. He thought it was no doubt bacterial infection, and most frequently infection with bacillus coli communis from the upper intestine. Blood counts in appendicitis were not of much value, and might be misleading. Nevertheless in some cases the blood count might be of distinct value, although not of the same value as the clinical signs. A leucocyte count of over 15,000 probably meant pus, yet a normal blood count might be met with in a gangrenous appendix. Personally he was inclined at present to favour immediate operation in a case of appendicitis.

Dr. CLARENCE READ referred to some cases in his practice illustrating the importance of immediate operation. He felt sure that immediate operation was best for the patient, as it saved him from a prolonged illness. When there was a localised inflammation he was content to swab out and not wash out the pus.

Dr. HERSCHEL HARRIS said that no mention had been made of the polynuclear count in such conditions. Some imagined that with a polynuclear count below 78 per cent. no operation was necessary, with a count above 90 per cent. an operation was necessary, and between these limits the surgeon had to use his own discretion. He thought that appendoliths were formed in a similar manner to renal calculi, viz., by some organism—e.g., staphylococcus, streptococcus, Eberth's bacillus, gonococcus, and pneumococcus—producing an abrasion of the lining membrane and a consequent deposit of salts thereon.

Dr. CRAGO believed in immediate operation, and referred to one case recently he had seen in which the appendix was diverted upwards and adherent over the duodenum.

Dr. T. FIASCHI thought it most important to accurately study all cases operated on in the usual way, but which had proved fatal.

Dr. HINDER, in reply, said he meant that the congenital constriction of the orifice of the appendix was often the determining cause of the bacillary infection. He had had bacterial examinations made in several cases, and had learnt that often the pus in these cases

was sterile, and this accounted often for the success which followed operation for peritonitis. At present time better results were obtained because operation was undertaken at an earlier period, and they did not so often meet the bad cases of peritonitis. He did not agree with the method of rectal injection of saline solution, as in many cases this was not retained.

Council Meeting.

THE Council met at the Association Rooms on Tuesday, 11th August, 1908. Present: Drs. Abbott, Rennie, Palmer, Crago, Hinder, Pockley, Maitland, Brady, Clarence Read, Jenkins, and Worrall.

The minutes of the previous meeting were read and confirmed.

The hon. treasurer reported the following credit balances:—General account, £790 3s 1d; Gazette account, £754 12s 8d.

New members elected.—Dr. Hans Muller, Albury; Dr. Mervyn Archdall, Sydney Hospital.

Friendly Societies Association.—Letter from Mr. Humphrey relating to the proposed model lodge agreement, and stating that all the associations had not yet dealt with it. Received.

The hon. medical secretary reported that the papers which had been promised for the meeting of 28th August had been temporarily withdrawn.

Resolved—That the writers of papers on appendicitis be asked to read them at the meeting on 28th August.

Resolved—That the hon. medical secretary be asked to prepare a list of papers for September 25th, and report to Council.

Letter from two members relating to the change of their hours of consultation, and suggesting that a circular be authorised to be issued.

Resolved—That permission be granted to the issue of a circular as suggested.

Resolved—That the profession issue a cordial invitation to hold the next session of the Australasian Medical Congress in Sydney.

Private Hospitals Bill.—Resolved—That the Council be of opinion that this bill in its present form, if passed by the Legislature, will be fraught with serious danger to the public.

Dr. Boyes, of Border Medical Association, relating to the membership of the Association. Deferred.

Hospital Card.—Hon. secretary reported that he had written to all the hospitals. Replies thereto were read and received.

Lismore Hospital.—Correspondence was read and received.

South Australia.

THE ordinary monthly meeting was held at the University on Thursday evening, August 27th; the President, Dr. A. M. Morgan, in the chair, and 37 members present.

Dr. W. T. HAYWARD, on behalf of the members, welcomed Dr. Morgan on his return from England, and wished him success in his new sphere of ophthalmic practice.

THE PRESIDENT thanked members, and hoped he would continue to deserve their confidence.

Living Exhibits—

Dr. H. S. NEWLAND showed a Mongolian imbecile, the subject of hair-lip and cleft palate.

Pathological Exhibits—

Dr. REISSMANN showed a specimen of chronic adhesive tubercular pericarditis.

Dr. H. S. NEWLAND showed Bruening's modification of Killian's oesophagoscope and bronchoscope.

The minutes were then read and confirmed.

Dr. R. H. MARTEN proposed that a letter of condolence be sent to the daughters of the late Sir Thomas Fitzgerald. Dr. J. H. EVANS seconded. Carried unanimously.

Dr. T. G. WILSON then read his paper on "The first 1000 cases at the Queen's Maternity Home."

Dr. A. A. HAMILTON read his paper on "Midwifery Statistics in Private Practice."

Dr. F. S. HONE read a paper on a similar subject.

Dr. GAULT read a paper on "A Case of Toxæmia of Pregnancy."

Dr. T. G. WILSON contributed a paper on the same subject.

Dr. PULLERINI mentioned two cases of inversion of the uterus to which he had been called. The first case was moribund when he saw the patient, and she died without treatment. The second case recovered. He had had three cases of hydrocephalus in 400 confinements.

Dr. GOOD asked Dr. A. A. Hamilton how he managed the placenta when the patient was deeply under an anæsthetic.

Dr. A. A. HAMILTON said he did not stand on ceremony with the placenta, but when it did not come immediately after the birth of the child he went after it. His statistics showed that this practice of his was harmless.

Dr. J. H. EVANS advocated the use of rubber gloves.

Dr. BOLLEN mentioned a case of face presentation in which a large caput succedaneum formed on the lip. He had also had a confinement in which the child cried before birth. He joined Dr. Evans in his plea for the use of gloves.

Dr. HARBOLD congratulated the staff of the Queen's Home on their results. He, however, thought the number of cases of post-partum hæmorrhage were excessive. For 20 years he had given ergot in all cases, and had never seen a case of post-partum hæmorrhage. He did not use forceps in one case in ten, nor did he employ anæsthesia in anything like 50 per cent. of his cases.

Dr. REISSMANN asked Dr. Hone what preparation of hyoscine he used. It was a difficult drug to standardise.

Dr. HONE said he always used the hydro-bromide of hyoscine.

Dr. W. T. HAYWARD said that as one who held that the less interference the better, the paper of Dr. Hamilton with its splendid statistics rather took the wind out of his sails. He thought Dr. Hamilton's results were the best he knew of, and he congratulated him. He thought that Dr. Hone's plea for sedatives in the first stage was a very valuable suggestion. He agreed that under modern conditions labour was no longer a purely physiological condition. He had used chloral hydrate in the early stages and had noticed that the contractions often started instead of stopping.

Dr. GUNSON had used morphia and scopolamine and had found that labour was not delayed. The patients were usually drowsy afterwards. In such cases the child was rather blue when born. His practice was to give one large dose, and to give half that dose if repetition was necessary.

Dr. W. A. VERCO congratulated the readers of the papers. He asked whether a post-mortem Cæsaræan section had been held in the case of fatal eclampsia at the Queen's Home. He also asked whether the records of the presentations were made by the staff or the matron.

On the motion of Dr. CECIL CORBEN the discussion was postponed until the next monthly meeting.

The meeting then terminated.

Queensland.

A MEETING of the Queensland Branch was held on Friday, September 4th, at the Technical College, Brisbane. Dr. J. Lockhart Gibson in the chair, and a fair attendance of members.

The PRESIDENT exhibited a girl aged 5 whose facies was peculiar. She was first brought to his notice because one of her eyes had protruded beyond the lids. The eyes were very prominent; there was no enlargement of thyroid; fontanelles were closed; at the back of the skull there was pulsating swelling with distinct thrill. The measurement of the skull was larger than the average in all directions except bi-parietal diameter, which was less.

Dr. SALTER said that he thought that the patient showed two conditions; that it was merely a coincidence that they occurred in the same patient; that she was suffering from leontiasis ossium, and also from circoid aneurism.

The case attracted a large amount of interest.

The PRESIDENT exhibited also a boy in which the corneæ were unusually small. The boy had a small head, saw $\frac{1}{8}$ in, and had incomplete atrophy of both discs. He also presented a condition of hypospadias. An uncle of his had been born with no hands and only one foot.

The SECRETARY reported a discussion by the Council upon the question of charitable institutions, the chief point of difference among members of Council being whether or not an institution supported entirely by Government should be regarded as a charitable institution.

It was decided that the matter be discussed at the next meeting of the Branch.

Dr. SCOTT read a paper upon "Various Types of Influenza." (See page 480).

Dr. HARDIE remarked that during the epidemic which had occurred in Brisbane this year nervous symptoms had predominated, particularly among old people. He said that during last summer, in the hot weather, influenza had occurred and pulmonary symptoms had been remarkably common. He related a case of one family of six, of whom five contracted influenza, all with pulmonary symptoms. The sixth had escaped until after the recovery of the others and their return from convalescence at the seaside. She swept out the room which her father, who had been the last to be attacked, had occupied during his illness. Within 12 hours after sweeping she contracted influenza, which was complicated by the pulmonary symptoms which had been noticed in the other members of the family.

Dr. LOVE said that influenza was a mixed infection. If the pure culture of influenza bacillus was found in sputum, the symptoms were of broncho-pneumonia; if the pneumococcus were found, symptoms of croupous pneumonia were exhibited. In the early epidemics which had occurred in Brisbane empyema had been very common amongst children. He regarded the infection of the free edges of lung as almost pathognomonic of influenza. It had been suggested, and he thought with some reason, that appendicitis—which had been so common of late years—might be the result of the infection of influenza.

Dr. BROCKWAY related details of a case of influenza contracted in August, 1907, in which in spite of various treatment the cough had persisted until the present time.

Dr. TURNER said that the incidence of influenza was a very serious matter in cases of phthisis among old people. He thought that it was sometimes very difficult to state whether a case were one of influenza or dengue. He related a case of hemiplegia which had

resulted in a patient who was suffering from cardiac disease.

Dr. E. URE related some interesting cases, and remarked that in infants the disease was not usually severe. She had noticed that neuralgia was a very common symptom during the epidemic of this year.

Victoria.

THE usual monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, 9th September. The president, Mr. G. A. Syme, occupied the chair, and there were 28 members present.

Dr. J. W. BARRETT gave notice that at the next meeting of the Branch he would move the following resolutions:—"That the Branch cordially approves of the proposals made by the Defence Department that the medical staffs of the metropolitan hospitals should become members of the Army Reserve Medical Corps. It, however, suggests that the organisation would be facilitated by the adoption for this branch of the service of an inexpensive and uniform military dress with distinguishing badges." "That a deputation of the Victorian Branch of the B.M.A. wait upon the Hon. the Premier, and to request that medical officers shall be appointed for the purpose of inspecting State schools and State school children, and of giving instruction in hygiene."

Dr. J. W. BARRETT showed a case of double optic neuritis in which trephining had been performed. On admission the patient, a youth, could just distinguish fingers at 2 ft. The optic neuritis subsided within ten days of operation, and vision was now, five months after operation, 6-12 and 6-9 in the two eyes respectively. The usual anti-syphilitic treatment had been employed, though no specific history was obtained.

Dr. G. HORNE read notes upon a case of Vaginal Hysterectomy for cervical endothelioma, which developed marked tachycardia and other heart symptoms four days after operation. The usual heart tonics increased the rate and caused irregularity. There was a rapid drop in the pulse from 180 to 100 per minute while taking ovarian extract. He considered that the cause of the tachycardia was a disturbance in the balance of glandular secretion. There seemed to be an antagonism between the secretions of the ovaries and of the thyroid. He discussed in detail the available evidence, advancing the theory merely as a possible explanation of the condition.

Dr. A. J. WOOD quoted the case of a cretin who had come under his care first at the age of 25 with no development of the sexual organs. She had grown four inches in ten years under treatment, and at the age of 35 had menstruated for the first time. The thyroid gland often enlarged abnormally at puberty, and here the administration of thyroid extract caused a subsidence of the bronchocele.

The PRESIDENT considered that while Dr. Horne's theory might have some measure of truth in it, it could not be the whole truth, as many cases of tachycardia after operation occurred when there could be no interference with the ovarian secretion, and that it was rare even after total removal of the ovaries.

Dr. A. N. MACARTHUR read notes of a case of Fibromyoma of the Uterus with marked Anæmia. On admission there was almost constant metrorrhagia, and the blood contained only 2,000,000 red corpuscles and 20 per cent. hæmoglobin. The vagina was packed and the patient kept in bed with the foot of the bed raised. Under treatment the red corpuscles increased to 4,200,000 in seven weeks with 40 per cent. hæmoglobin. Subtotal hysterectomy was then performed, and the

patient left the hospital three weeks later, a result which he considered doubtful if immediate operation had been performed.

Dr. C. H. MOLLISON showed a series of specimens of pathological anatomy of exceptional interest.

West Australia.

ORDINARY meeting held at the Perth Hospital, August 19th, 1908. Present: The president (Dr. Seed) in the chair, and 23 others.

The minutes of the previous meeting were read and confirmed.

Election.—There was one candidate for election as a member of the Branch. On the vote being taken the candidate was declared not elected.

Cases.—Dr. CUMSTON showed a case of scabies, which is somewhat uncommon in West Australia. He also showed an acarus under the microscope. He would be glad if medical men would notify local boards of health of cases occurring in their practice.

Accounts.—Accounts to the amount of £47 19s were passed for payment.

Correspondence was then dealt with.

Dr. J. M. Y. STEWART then read some notes on cases. 1. Of a man aged 54, with good previous history, who had had a molar extracted. This was followed by a septic condition of the mouth and generally, the skin became the site, first mottled and bluish patches and later distinct nodes. The patient had a temperature ranging from 100° to 104° 6', and ultimately died of heart failure. Cultures taken from the mouth showed the presence of a form of spirochæta, but nothing definite was found in the blood. 2. Of a case of pan-hysterectomy in a woman of 48. The tumour had been of very rapid growth, and an ante-operative snip taken showed it to be an epithelioma with rapidly dividing cells. The woman was well 18 months after the operation. 3. Case of a woman aged 59, known to have had a large abdominal tumour for more than 27 years. She had just landed from a steamer journey when she was taken ill with abdominal pain. She was suffering much from shock before the operation, and, unfortunately, never rallied. The tumour was a fibroma of the uterus and had got twisted. It weighed 29½ lbs.

Exhibits.—Dr. CLELAND showed a copy of—(a) Harvey on the Incubation of the Blood; vellum bound; 1648th edition. (b) The second volume of the Transactions of the Provincial Medical and Surgical Association, now the *British Medical Journal*. (c) Translation of Rhazes, the Arabian "Treatise on Smallpox and Measles."

Pathological.—Dr. NEWTON showed a very large rapidly-grown fibroma uteri which he had removed. The patient did well.

Dr. CHAPMAN read notes and showed a specimen of a large papilloma of right vocal cord, which also nearly surrounded the larynx below the vocal cords. The patient was three years of age, and dyspnoea had been present for 18 months.

General.—It was decided to hold a dinner in September.

The American Fleet Surgeons.

FROM the *New Zealand Herald* we learn that the Auckland branch of the British Medical Association entertained the visiting fleet surgeons at the Northern Club. Dr. Tracey R. Inglis, president of the local branch, was in the chair. There were 24 naval surgeons present, and about 40 New Zealand doctors, who had

come from Wellington and Greymouth. The toast of the "Surgeons of the American Fleet" was proposed by Dr. McDowell. He referred to the pleasure he felt as an Auckland-born citizen that this historic meeting of the great white fleet with the representatives of the British navy had taken place in the Waitemata, whose meaning of "sparkling, peaceful water" was a happy omen. Much had been said during this week of the bonds which link together the two nations, making them a common race in language and religion, but a still greater bond existed between those present, that of professional brotherhood. They were comrades-in-arms in the ceaseless warfare against disease, deformity, and death. Their minds were bent upon the solution of the same great problems, their hearts were moved by the same aims and impulses to prevent, cure or assuage the sufferings of human kind. He greeted the surgeons of the fleet as representatives of American medicine, and referred briefly to their great achievements. He spoke of them as experts in a special branch of medicine, and said that while their ability as naval surgeons had been shown in war, yet it had wrought its greatest work in conquests of peace, in the regions of public hygiene and tropical medicine, and, in conjunction with the military service, they were banishing yellow fever and malaria from the new possessions of the United States. Last Sunday morning the American Stars and Stripes and the Union Jack floated side by side to welcome the fleet's arrival, but now, at the close of the week, after such happy intimacy, those present realized that the officers and men of the American navy had drawn the flags nearer together, and had succeeded in entwining them together into a fair and firm "sailor's knot." He called upon the company to drink to the health of the surgeons of the fleet who were pioneers in this great work, and also to the dawning of the day when, through a fuller knowledge and a freer intercourse, the "sailor's knot" would be transformed into a "true lover's knot," a fitting symbol of the relations of the two great branches of the Anglo-Saxon race—a great quality in unity, a power making for liberty, equity, and fraternity among the nations of the earth. Fleet-Surgeon Curtis, in reply, related some of his experiences during the visit of the fleet to the South American ports, and referred to the excellent work which had been done in Rio de Janeiro by the medical society experts, who had now made it one of the healthiest and cleanliest cities in the world, a contrast to what it was a short time ago—a hotbed of smallpox and yellow fever. Nowhere had they met with a more friendly welcome than in Auckland, and they had been highly pleased with the beautiful scenery, excellent climate, and general prosperity of the city. An enjoyable musical programme was submitted.

A DINNER, tendered to the surgeons of United States of America Fleet, was given by the members of the New South Wales Branch of the British Medical Association at Baumann's Café on Wednesday, August 25th, 1908: Dr. G. H. Abbott (president) in the chair. Drs. Hinder, F. A. Pockley, and Crago occupied the vice-chairs. The following visitors were present:—Fleet-Surgeon Curtis, Surgeon Berryhill, Surgeon Furlong, Surgeon Blackwood, Surgeon Wentworth, Surgeon Dennis, Surgeon Grunwell, Asst.-Surgeon Baker, Surgeon Dunbar, Surgeon Spear, Surgeon Macdonald, P.A. Surgeon Ryder, P.A. Surgeon Bogan, P.A. Surgeon Jenness, P.A. Surgeon Asserm, P.A. Surgeon Manchester, Staff-Surgeon Forrester (of H.M.S. *Pyramus*), and Staff-Surgeon Tobb.

The CHAIRMAN (Dr. G. H. Abbott) proposed the health of the King and the President.

Apologies were received from the Surgeons of H.M.S. Powerful and Challenger, and from Surgeon-General Williams, of the Commonwealth Forces.

Dr. SCOT SKIRVING, in proposing the toast of "Our Guests," said:—Mr. Chairman and Gentlemen,—The land from which our guests have come is no foreign one, nor are they strangers. Apart from our common origin, in which he thought all wise citizens of either country took a common pride, they, the disciples of St. Luke, need not look for ties of either country or creed to bind them together. They all belonged to the Commonwealth of Medicine—a true democracy which recognised no geographical bounds, and no barriers of rank or race. This, then, their profession, with its broad field of applied science and its infinite capacity for service to their fellow-men, is another link which brought them close, as much perhaps as a similarity of speech, custom, law, or blood. It was, therefore, on more than one ground that they welcomed their colleagues to these shores; not, then, as strangers, but as brothers in work and kinsmen in race. The scientific work done by citizens of the great Republic had proved them to stand high in the world of medical research and practice. The advance in Medicine which came from America was a possession which they of British ancestry valued and made use of daily. In good truth, the pioneers of America had shown themselves as capable and deft in delicate researches in science, as they had proved themselves valiant and strenuous in conquering nature in its ruder aspects. Among those leaders of men, those "breakers of the trail" in their own profession, he might there recall with pride the names of some who had advanced the science of Medicine and added lustre to the land in which they practised their art. Many of them remembered that the father of ovariotomy, Ephraim Macdowell, was a country practitioner, he thought in Kentucky. Need he mention the honoured name of Marion Sims, to whom gynaecology owed so much. Imagine the world now without anaesthetics, and they may well thank God that Morton, a dentist of Boston, in common with our own Sir James Simpson, gave the sick and hurt the boon of insensibility to pain. Of some of those masters in Medicine who were yet with us, did any of them forget Weir Mitchell, who charms alike by his eloquent and versatile pen, and from whom we learned that doctrine of "Fat and Blood" whereby so many sick persons (of both sexes) have been saved from a life of neurasthenic uselessness. In Osler, they, men of American and British up-bringing, might take a dual pride—for although, to use his own words, "he heard the East a-calling" and went to spend the Indian summer of his life beneath the immemorial elms of Oxford, yet they did not forget that his real life's work was done and his encyclopaedic knowledge gained in American schools. There was yet another honoured name, now no longer with them, which he would do ill to leave unspoken—Oliver Wendell Holmes. What man among them had not had his mental horizon made ampler and his heart sweetened by the wise, kindly teaching of that best of autocrats? Nor could he forego the pleasure of honouring the great centres of learning in the homeland of their guests, the fame of which justly draws students from the most ultimate shore. Harvard, Yale, the Rush Medical College, the Johns Hopkins Medical School, the University of Pennsylvania, are a few of many which crossed his mind as he spoke. In no country had the obligation of wealth to richly endow been more observed than in the United States. Those great gifts by private benefactors had always seemed to him to somewhat mitigate the more insolent features

of overgrown wealth. At least might one not say that their gifts "may be accounted to them for righteousness' sake." This habit of free giving might well be imitated by their own Australian millionaires. But, great riches are not always necessary for the beginnings of great institutions. Take Harvard, the most ancient of American Universities, it indeed had a most modest inception. "In Harvard there breathes," as a recent writer says, "the true spirit of humane letters—nor is it the creation of yesterday. It is in fact not far short of three centuries since John Harvard, once of Emmanuel College in England, endowed the University which bears his honoured name. The bequest was a poor £780 with 260 books; but it was sufficient to ensure an amiable immortality to the founder." Samuel Johnson somewhere tells us, in one of his rather turgid sentences, that often schemes and institutions with grandiose and opulent beginnings have meagre and frustrate endings. In Harvard the converse happily obtains, and from so small a commencement there has grown an university the fame of which has travelled in the mouths of men from end to end of Europe, and here, in this distant outpost of the English-speaking people, they strove to emulate her history and join in admiration for the work her scholars have accomplished. Their guests, then, were citizens of no mean country where there exist men of learning such as he had commemorated and such centres of knowledge he had named. Who have been reared in such surroundings and who have enjoyed such training—these men are truly no strangers to us—rather are they indeed very welcome guests. Nor is this all; for, gentlemen, they belong not only to the profession of Medicine, but to the sea service—a calling which must appeal equally to men of both nations. To you, Americans, who rightly glory in the history of your Navy, and who take pride in the seamanship of generations of your sailors—in the men of Fenimore Cooper, of Dana, and Herman Merivale—these tough seamen bred on the shores of the Atlantic, and sailing out of Baltimore or New York, Nantucket or New Bedford, carried the flag of their country to the most lonely island of the Pacific, or made a spot of life and colour in the frozen solitudes of the Antarctic. To us also the sea service stirs strongly—we who pathetically still call the British Islands "home;" for in those misty islands and on those rainy seas were reared the seamen of Nelson, whose lives and deeds are emblazoned in the glowing pages of Captain Mahan. But this is no place for long speeches, and it is not fit in an informal gathering of medical men to refer to matters of high politics. Yet it may at least be permitted to him to say here, to his fellows of the craft, that in these meetings of men of one profession, drawn from diverse countries, nothing but good could result. With the approachment of individual persons and the commingling of men of like professions and like ideals, the whole body politic is leavened with the salt of tolerance and the sweet reasonableness which comes of a better knowledge of one another, and thus in a small way is furthered the Friendship of Nations and the Federation of the World. Gentlemen, in no formal spirit, you are asked to drink to the health of our guests of the Naval service of the United States—our brothers in Medicine—our kinsmen in blood.

FLEET-SURGEON CURTIS, in reply to the toast, said that he had only one regret, and that was that this happy meeting had not come earlier in the visit of the Fleet, as it was a memorable one. In the kind receptions which had been given everywhere, the medical profession had always been in the forefront and ready to welcome them in every way. In Rio Janeiro, which

had for a very long time held a very unenviable record for its insanitary condition, but which now, owing to the efforts of one of their colleagues in medicine (Dr. Salvador), had very much improved. Dr. Salvador's work was so much appreciated by the people that he might easily aspire to being President of Brazil. This was the work of one of their profession, and it was only one instance of the great work done by their noble profession in alleviating pain and suffering. At Auckland the medical men also extended the hand of friendship, and on their arrival at Sydney they found themselves at home. On approaching these shores they were met by a vast concourse of people, and the State which they had associated with the kangaroo and boomerang proved to be populated by a great number of people far in excess of any anticipation of theirs, and they found that Australia was something more than the home of the kangaroo and boomerang. It afforded them all the greatest pleasure to be present that night, and they desired to tender their warm thanks for their kind hospitality.

Dr. BERRYHILL, of U.S.S. Nebraska, said when he looked upon this vast assemblage of scientists and doctors he appreciated the manner in which they had been received. In New Zealand the medical men extended the hand of friendship, and here in Sydney they had received the warmest expressions of welcome. They were brothers in that they had one object—the relief of pain and suffering. In no other walk in life could such efforts be shown for the uplifting of the people as in the medical profession. In their country some good had been done by the men mentioned by Dr. Scot Skirving. Osler was a Canadian, but his work was largely done in America. By the munificence of Johns Hopkins something of a lasting benefit had been done for the people. Stanford, in California, endowed the University there. Rockefeller had also given large University endowments. Although they were Americans they always looked to their mother country. The Anglo-Saxon race predominated in America, and although they were separated from their mother-country they were working out the same problems. The hospitals here were equal to any in their own country, and the work done seemed to be in the forefront. They in America were more practical. Here there was a five years' course for Medicine, while in America it was only three years in college and one year in hospital. Here the young man was kept five years at the University and then let loose to trade upon his fellows; but in his opinion it was too long, and when a man had not finished his course at the University until he is 25 or 26 years of age it seemed to be a waste of time. The people of Australia had everything to make a great nation and to help to make the white race the predominant race of the world.

Dr. BLACKWOOD, surgeon of the U.S.S. New Jersey, said he was pleased to be present with his colleagues. Had it not been for an unfortunate accident America, like Australia, might now have been a portion of the British Empire. During the infancy of America the lion roared and the eagle screamed, and there was trouble generally. Now they had grown up to manhood they were always ready and willing to stand by their mother-country. During all the years the noble army of the Medical profession had gone on its way, relieving pain and suffering. Times in Medicine change as in all other things; if it were not for such changes the Christian scientist would not have a chance, but the time for reducing pain by telephone had not yet arrived. They fully appreciated all the kindness and the great honour and pleasure Australia had given them. He wanted them to know the fellowship which they feel exists between them in their efforts to benefit the

human race. They felt that the reception accorded to them came from the heart, and they sincerely hoped they might come again.

Dr. FIASCHI, in proposing "The British Navy," said the toast that he had the honour to propose was one which would secure the sympathy of their American colleagues and appeal to the patriotism of all the Australians. Patriotism, he said, for who amongst their detractors could deny that the medical profession had always been conspicuous for its intense patriotism. Spread as they were amongst the people, in close touch with the wants of all classes, they knew well their aspirations and their resources. Trained to observation, and, as their guest, Dr. Berryhill, stated, possessed with intelligent faces—statement which so far had not been contradicted by the distinguished alienists present,—they had all the means in their hands to gauge what the chief factors for good and prosperity of their nation had been in the past and were at the present. No frothy oratory or subtle devices of certain politicians could blind them to one great solid fact—that in the foundation, settlement and growth of the Australian States no other human organisation had contributed so much as the British Navy. Not only had the British Navy been at all times their first line of defence, and thus enabled them to develop their country and institutions in the full security from all foreign aggression, but from Captain Cook down, through a long succession of distinguished naval men occupying high positions in the Government, up to the present most popular Governor and valiant Admiral, Sir Harry Rawson, the influence of the Navy in the successful development of Australia had been paramount. Their debt of gratitude to the British Navy was very great; would to goodness that they could repay it in a manner proportioned to the present importance and wealth of Australia! They hoped that the visit of the fine American fleet and the example of what that nation was expending on its naval defences would stimulate Australians to acquit in a proper manner their great obligations to the British Navy. It was a comfort to know that their profession had not been laggard in actual deeds in support of their local naval defences. Nor could he let that occasion pass without paying a tribute of respect to the memory of one of their members, the late Dr. John Steel, who fell on the march to Pekin whilst on duty with the N.S.W. Naval Contingent to China in 1901. Gentlemen, allow me, the only non-Anglo-Saxon here present, to make a statement that perhaps you as English and Americans might not care to make: the British Navy was something more than a purely British concern, it was one of the greatest organised powers of this planet, a power for the good and civilisation of all, and its history was one of the most glorious and inspiring pages of the history of humanity. He asked them to drink to "The British Navy."

Dr. LOBB said it gave him great pleasure to be present and to respond on behalf of the British Navy. He joined with others in welcoming their American colleagues, and he hoped that the hand of friendship might ever be extended between the two nations. He thanked them for having so heartily received the toast.

Dr. FORRESTER said, like Dr. Curtis, he, too, thought that when he first came out here that he was coming to a land of kangaroos and boomerangs, but now that his eyes had been opened he fully appreciated the great country of Australia. He thanked them for the reception of the toast of the British Navy.

Dr. GREGORY O'NEILL proposed the health of "The Chairman."

Dr. ABBOTT suitably replied.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Diabetes Ininsipidus.

Joslin (*Boston Medical and Surgical Journal*, May 21, 1908), reviewing the literature on this subject, remarks that the cause of the polyuria in typical diabetes insipidus lies in the increased concentration of the blood and the functional incapacity of the kidney to secrete the urine with so large a proportion of solids as normal urine. This may be due to a dilatation of the renal vessels unaccompanied by a general rise in arterial pressure. Schmidt would modify the course of the disease by producing artificial hyperæmia of other vascular areas, e.g., catharsis and sweating; and Spaether explains the favourable action of strychnine upon the disease as due to assimilation of the renal vaso-motor nerves. Seiler confirms Tallquist's work, showing that the ingestion of large quantities of nitrogenous food is not followed by a rise in the specific gravity of the urine, as is the case with normal individuals, but instead an increased quantity of urine with lower specific gravity is excreted. Uræmia does not occur in this disease despite the temporary increased concentration of the blood, because the kidneys are functionally capable of removing the excess. Consequently as low a proteid and salt diet as is consistent with health is indicated in this disease, because thereby the work of the kidneys will be reduced to a minimum. Winckelmann found that the variation of the nitrogenous portion of the diet as compared with the sodium chloride was of little consequence. Nicholas thinks that the excessive secretion of chlorine is due not to abnormalities of the kidney, but rather to a lack of capability of all the tissues to retain sodium chloride. Occasionally patients with diabetes mellitus who have become sugar-free continue to secrete large quantities of urine. This may be due to hypertrophy of the prostate, but in some cases there may be some common central cause. Teschemacher has observed three cases of diabetes mellitus which became cases of diabetes insipidus. One of these, after a period of glycosuria lasting a year, became for the next 13 years a case of diabetes insipidus. Glycosuria then returned and again disappeared after a period of eight months.

Early Diagnosis of Typhoid Fever by Blood Cultures from the Ear.

Mabee and Taft (*Boston Medical and Surgical Journal*, June, 1908) remark that Conradi, in January, 1906, showed that it was possible to discover the typhoid bacillus from the circulating blood in a much larger percentage of cases of typhoid fever by the use of ox bile as a medium than by ordinary culture media previously employed. A recent epidemic of typhoid in Boston has given the writers an opportunity of making cultures on 120 consecutive cases who were admitted to the Boston City Hospital. Fresh ox bile was used as a culture medium in 90 of the cases; inspissated bile in the other 30. Five c.c. of fresh ox bile were placed in tubes and sterilised in an autoclave for 30 minutes. Inspissated bile is used with apparently equally good results. It was derived from fresh bile which had been sterilised and from which the water had evaporated at room temperature. The residue was prepared for use by the addition of distilled water to make it up to the original amount and resterilised. The blood was drawn from the ear into clean sterile pipettes, the amount of blood taken in each case being about 1 c.c.

Each specimen of blood as soon as collected was transferred at the bedside from the pipettes to the ox bile before clotting could take place. The dark colour of the bile medium when mixed with blood makes it difficult to determine the presence of a few micro-organisms. For this reason after the bile cultures were incubated at 37° C. for six hours the authors transferred four platinum loops of it to plain bouillon. In most of the cultures from which the typhoid bacillus was recovered it was present in the first transfer to bouillon. If this transfer was negative for the typhoid bacillus others were made from the bile culture after longer periods of incubation until this organism was either obtained or at least four transfers were made. If the fourth transfer showed no typhoid bacilli the case was regarded as negative. In 120 patients admitted with the diagnosis of typhoid fever, from whom blood cultures were made, 98 subsequently developed typical typhoid symptoms. The presence of a positive Widal reaction in the first week of typhoid fever is uncommon. In the second the Widal action ordinarily is present in about 84 of the cases, and gradually increases until practically every case at some time gives the reaction, although the reaction may resist for only a short time. The Widal reaction may be suggestive or even positive in a few diseases other than typhoid fever, and also may persist for some time after an attack of this disease. In the present series of cases it was found to be present in two patients admitted for typhoid fever who had been exposed to infection by contaminated milk. Both of these gave a history of a previous attack of typhoid fever. Blood cultures were negative in these cases on the third day of their illness, and neither subsequently developed the clinical course of typhoid fever. The authors draw the following conclusions:—Blood cultures in early cases of typhoid fever, that is within the first week, give an accurate diagnosis in 92 per cent. The information obtained in this way is therefore extremely valuable, because the Widal reaction is rarely obtained before the ninth or tenth day of the disease. The simplicity of the method of obtaining blood from the ear for blood cultures warrants its general use by practitioners. In early cases 1 c.c. of blood is sufficient for each culture. In cases of two and three weeks' duration a larger quantity of blood gives a higher percentage of positive cultures. In febrile conditions of a few days' duration with symptoms simulating typhoid fever a negative blood culture probably excludes typhoid fever.

Metabolism during Inanition.

Benedict (*Medical Record*, September, 1907) describes the results obtained from a series of experiments on a case of fasting, the points investigated being carbon dioxide and water elimination, oxygen consumption, and heat production, and an elaborate study of the urine. The body weight during inanition showed a daily loss varying from 44 grams to 1·7 kilograms. The body temperature in general remained practically constant during fasting, with slighter variations than are commonly seen in the case of men consuming food even under like conditions of muscular activity. The pulse rate showed a tendency to fall, but there was a marked increase on the ingestion of food, even in small quantities. The blood examination showed:—1. A progressive average fall in the number of erythrocytes with the temperature following. 2. A corresponding diminution in the percentage of hæmoglobin. 3. A relative progressive fall in the percentage of leucocytes, but no marked variation in the relative percentages of the various types of leucocytes. Strength has shown a noticeable falling off, when determined by the

dynamometer, but strength rapidly returned with resumption of food. Subjective impressions to mental attitude of the subjects determined in large measure their ability to withstand the fast. With regard to the urine, the nitrogen output varied considerably, from 5.8 grams on the first day of one experiment to 15 grams on the third day of another experiment. The output was rarely below 10.5 grams per diem. It was specially noted that the nitrogen excretion on the second day was, on the whole, much greater than that on the first. While the quantities of preformed kreatin increased as the fast progressed, the total kreatinism remained singularly constant. For the first two days the uniformity in carbon elimination was striking. As the fast progressed there was a rather persistent decrease in the output of carbon dioxide.

The Pulmonary Sound in Mitral Incompetence.

Kerr (*California State Journal of Medicine*, abstracted in *Jour. of the American Med. Assoc.*, October, 1907), after an examination of the physiology of cardiac action and blood pressure as bearing on statistics collected at Guy's Hospital, London, from all cases of hæmoptysis occurring in valvular disease, considers that the clinical facts shown thereby cannot fail to raise doubts as to the existence of any great increase in pulmonary blood pressure in cases of simple mitral incompetence, and that the physiological conditions seem to furnish additional warrant for scepticism. There cannot be any doubt that the pulmonary pressure is raised both in mitral stenosis and incompetence, and we are therefore compelled to ask why hæmoptysis is so much more frequent in mitral stenosis. There is this distinction, therefore, between the increased pulmonary tension of mitral incompetence and that of stenosis: the pressure is raised in both lesions during ventricular systole, but in the former it may be relieved immediately on the completion of the systole during the period of relaxation that takes place before the semilunar valves close, while in stenosis the increased pressure persists well into the diastole; and hence in this latter condition the signs of high blood pressure in the pulmonary circulation are more marked. It is not disputed that in mitral incompetence the pulmonary sound frequently is louder than the aortic, but until middle life this is the normal state of affairs; furthermore, in cases of mitral incompetence the tendency is toward diminished intensity of the aortic sound, on account of the smaller column of blood propelled into the aorta and a consequent feeble recoil. We must, therefore, be careful to discriminate between an actual accentuation of the second sound and an apparent increase in its intensity, due to diminution of the aortic factor.

The Interpretation of the Positive Venous Pulse.

Hewlett (*Journal of Medical Research*, vol. 17, 1907) draws the following conclusions on this point:—1. A positive wave on the venous pulse during the ventricular systole may be due to at least three different causes: (a) simultaneous contraction of the auricles and ventricles; (b) tricuspid insufficiency; (c) paralysis of the auricles. 2. Simultaneous contraction of the auricle and ventricle causes or tends to cause the V-wave to disappear from the tracing owing to auricular diastole. 3. Tricuspid insufficiency produces a large V-wave, which appears abnormally early. In marked cases there is a gradual ascent in the tracing from the auricular wave to the summit of the V-wave. 4. In absolutely irregular pulses the auricles have ceased to contract. The positive venous wave of early ventri-

cular systole is produced by the contraction of the ventricle, and is transmitted unchanged through the motionless right auricle to the neck. Normally this wave is taken up by the dilating auricle. 5. Tricuspid insufficiency does not necessarily accompany auricular paralysis, and when it does so its diagnosis is difficult, for the reason that in both conditions the V. wave appears early, owing to the excess of blood in the right auricles.

The Ophthalmo-Tuberculin Reaction.

Klieneberger (*Deut. Med. Wochenschrift*, abstracted in *Medical Record*, June 13th, 1908) has tried the Calmette test in 52 cases of tuberculosis in which bacilli were demonstrated in the sputum. In 19 patients, or 63.5 per cent., reaction was observed, the greater number of negative results being given by the patients in the third stage of the disease. Of the 123 persons with suspected tuberculosis, 68, or 44.7 per cent., gave a positive reaction. Of 239 persons in whom no tuberculous infection could be diagnosed clinically, 56, or 23.5 per cent., gave a positive reaction. The author thinks the ophthalmo-reaction has no prognostic significance; that a positive reaction is not a sure sign of the existence of tuberculosis; that negative results are of still less value. He prefers the cutaneous reaction of V. Pirquet, because it is not dangerous and is less liable to error. Of 17 tuberculous patients of his series, 16 gave a positive cutaneous reaction; of 86 suspected cases, 45 gave a positive reaction; of 23, in which no tuberculosis was suspected, 16 gave the reaction.

PATHOLOGY.

The Experimental Reversion of Mouse Carcinoma to the Type of Adenoma.

Apolant (*Munch. Med. Wochenschrift*, abstracted in *Medical Record*, Sept. 28th, 1907) says that the conditions existing in the growth of a malignant tumour may be compared to the course of a stream which remains in its normal bed as long as the banks offer the necessary barrier to the flood. If these natural barriers are broken, however, either through a rise in the waters corresponding to the increased activity of the tumour cells, or through destruction of the banks, which would correspond to the weakening of the powers of resistance of the organism, the inundation can be impeded only by the erection of artificial obstacles or dams. That some such measures are actually possible of application is shown by experiments on mice in which the author succeeded in causing malignant carcinomatous growths to revert to the benign adenomatous type in consequence of a procedure of immunisation. In one set of cases this was effected by injections of juice from virulent spontaneous tumours, and in the other by the injection of blood from healthy mice. In a considerable portion of cases the reversion of the previously malignant tumour was observed. The author regards these experiments as further evidence in favour of not attempting to differentiate too sharply the adenomatous growths from the cancers, since the fact that a transition may occur from the benign to the malignant forms and back again indicates the advisability of regarding the entire group of new growths as more or less of an entity.

Primary Malignant Disease of the Vermiform Appendix.

Elwell (*Quarterly Journal of Medicine*, July, 1908) reports a new case of this disease, and discusses the pathology of the condition. He concludes that (1) all tumours which display malignant characteristics from

a clinical standpoint are very rarely found in the vermiform appendix. (2) In only five of the reported cases of carcinoma of the appendix did the tumours betray a malignant nature. In three of these it is difficult to exclude the cæcum as the possible site of origin of the growth. (3) The remaining reported cases of carcinoma of the appendix form a group with the following common characteristics:—*Clinically*: (1) A very early age incidence; (2) an undoubted but undefined relationship with inflammatory conditions; (3) a complete dissociation from all the gross manifestations of malignant diseases, e.g., invasion of neighbouring organs, metastatic development, post operative recurrence. *Histologically*: Two main types are recognised—(a) spheno-cell; (b) column cell. But some growths exhibit transition from one type to another. Both types display under the microscope a tendency to invade tissues other than that in which they originated. They are thus differentiated from perfectly simple tumour, such as adenomata. Their rate of growth is not readily estimated, but would appear to be slow. They rarely undergo colloid degeneration. In many cases appearances are described which are comparable to those of an endothelioma. For the diagnosis of endothelioma these data are necessary:—(1) The exact site of origin of the growth. (2) The character and arrangement of the cells. (3) The behaviour of the growth. Of these three data the last and least important is known to be the same in all cases. The second is inadequately detailed in many reports. The first and most important is very rarely available. Therefore, although the term "carcinoma" is not in accordance with the clinical manifestations of these growths, there are not as yet sufficient grounds to justify the introduction of any other.

Atheroma and Diet.

Loeper (*Arch. des Maladies du Cœur*, abstracted in *Journal of the A.M.A.*, May, 30th, 1908) goes over the list of alimentary poisons that have been experimentally found to cause atheromatous vascular degeneration. Certain substances contained in meat seem toxic phosphoric acid, for example, and lactic or sarco-lactic acid, which in the hands of Fischer, of Boveri, and of himself have been shown to produce well marked lesions of the vessels. It is probable also that the alkaloids normally present in certain flesh foods, such as game killed after severe exertion in the chase, and that of certain fishes, and crustacea, may be vaso-motor poisons. Some vegetables are very rich in oxalic acid, which in minute doses is a vascular irritant. Poisonous fungi are sometimes eaten, while other species considered generally innocent contain undeniably toxic principles. In fruits the malates, tartrates and their salts cannot be held entirely harmless, nor can vinegar and many spices like mustard, pepper and capsicum. Next to adrenalin, capsicum is one of the most powerful agents for the experimental production of atheroma. Tea, coffee and chocolate in excess are vascular poisons. Even the common mineral salt of lime, soda, magnesium, etc., when too freely taken may have bad effects. Loeper and Boveri have found that excessive carcaseous alimentation aggravates the lesions of experimental atheroma. Food should be taken fresh, as when putrid it contains acids, alkaloids, ptomaines and leucomaines, some of which act directly on the vessels as well as on the nervous system. The ergot of certain grains produce very striking atheromatous experimental lesions of the vessels. Foods also give rise to toxic waste products that cause atheromatous degeneration of vessels. Uric acid has been observed by Sicard and Et. Brissand notably to aggravate the atheroma due to small doses

of adrenalin. In this connection, Loeper says that in all the experiments in which his paper is based the results of inflammation of the vessel were excluded; in none of these was sclerosis of the vessels produced. The mechanism of atheroma seems to him to be by direct irritation of the vascular walls. The hypothesis of an excitation of the trophic nerves seems hardly well supported. The hypertension theory is even less probable, as many of the agents are tension lowering, and finally it is difficult to invoke a hyperfunctioning of the suprarenals, which he found hypertrophied in only one instance. In discussing the practical bearing of these facts Loeper says that while we should avoid a diet of falsified and toxic products, and for certain patients a very restricted range should be allowed, the absolutely toxic diet is impracticable. The living organism is constantly producing its own poisons by the mere fact of its living, and we cannot conquer atheroma. What must be attempted is to prevent atheroma conquering us.

Tuberculous Infection through the Alimentary Canal.

Ravenal and Reicher (*Journal of Medical Research*, March, 1908) have published the results of a large number of carefully controlled experiments on the infection by tuberculous material through the alimentary canal. The object of the experiments was to prove the possibility of the passage of the tubercle bacilli through the intestinal wall of the healthy guinea-pig, and to determine the time required to reach the lungs. An emulsion of tubercle bacilli of known virulence were mixed with an equal volume of fresh cream and injected into the stomachs of a number of guinea-pigs with a fine hypodermic needle, the stomach having been previously exposed by an abdominal section. The pigs were killed from four to 24 hours after inoculation, and the lungs carefully removed, ground up with salt solution and injected intraperitoneally into another batch of pigs, which were killed after six weeks. Fifty-six per cent. of these latter showed infection with the tubercle bacilli, some of the cases inoculated with the lungs of pigs killed four hours after inoculation being positive. Two pigs were allowed to live for six weeks after inoculation as controls, but one of these, in spite of precautions taken at the time of the inoculation, showed evidence of infection about the wound. In view of these results, the authors feel unable to draw any positive conclusions from their work, since it is possible that infection took place through the blood or lymph channels to some extent at least. At the same time the distribution of the lesions convinces them that the passage of tubercle bacilli through the intestinal wall did take place, and they believe their results give confirmatory evidence to the work of others in the demonstration of the importance of the alimentary canal as a portal of infection in tuberculosis.

PÆDIATRICS.

The Channels of Entrance of Tuberculosis.

Calmette (*Presse Medicale*, October, 1907), at the sixth conference on Tuberculosis, at Vienna last September, after criticising the experiments of Küss and Findel on aerial communication, summed up the results of his own work as follows:—1. The contagion of tuberculosis cannot be experimentally effected through the respiratory tract except with the greatest difficulty, by making animals inhale tuberculous products or cultures in a state of fine spray. The inhalation of dry powders also only exceptionally

succeeds in effecting contagion. It must therefore be admitted that dust contaminated with dry bacilli does not play any important part in natural infection. 2. The ingestion of virulent tuberculous products or of cultures in the state of a fluid emulsion is constantly effectual in producing tuberculosis in all kinds of susceptible animals. The bacilli can then be absorbed through the intestinal mucous membrane without producing any lesion by their passage; they are carried by the chyle to the mesenteric glands; thence they are frequently carried by phagocytic leucocytes into the lymph current of the thoracic duct and thence distributed in the blood stream. The pulmonary capillaries are most prone to become the seat of the first tubercular lesions, hence the extreme frequency of pulmonary tuberculosis in relation to other localisations of hæmatic origin.

Delayed Chloroform Poisoning.

In the *Lancet*, February 29th, 1908, a number of cases of this unfortunate condition are recorded. Thorp reports the case of a boy, aged 3 years and 10 months, who was operated on for phimosis. He had recently recovered from chicken-pox, but showed no symptoms of renal complications. Two drachms of chloroform were given and the administration lasted about seven minutes. It was well taken, and the patient slept after the anæsthetic. Fourteen hours after the operation attention was directed to his noisy breathing. The pulse was small, rapid and feeble. He vomited several times, and the vomitus smelt strongly of chloroform. The next morning he remained unconscious, but the respirations were less laboured. In the afternoon an acetone odour could be detected in his breath, and a catheter specimen of his urine was obtained. Towards evening he became comatose. He died at midnight, 36½ hours after the operation and about 23 hours after the onset of symptoms. The specimen of urine showed 8·31 grains of urea per ounce. The acetone reaction was distinctly present, but the reaction for diacetic acid was extremely doubtful. Telford gives records of three cases which came recently under his observation. The first was that of a boy, aged 2½ years, operated on for tuberculous epididymis. The chloroform administration lasted 20 minutes. The child recovered promptly from the anæsthetic, but on the following evening he vomited some dark, coffee-ground material, and was very restless. The breathing was hurried and the pulse thin and beyond count. Death took place six hours later and was ushered in by drowsiness. At the post-mortem the liver was found to be somewhat enlarged, and showed extreme fatty changes. The kidneys were of a pale yellow tinge, especially in their cortical portions. Microscopically, marked fatty degeneration was found to be present both in the liver and kidneys. The second case was that of a girl, aged 8 years. She was operated on for double genu valgum. The anæsthesia lasted for 20 minutes. After the operation she became very restless, and slept fitfully during the night. Next morning her condition was worse. She was constantly retching, and the odour of acetone could be detected in her breath. The pulse was quick and feeble. Later in the day she vomited copiously dark-brown fluid. During the night she became weaker and she died next morning. Urine voided just before death contained both acetone and diacetic acid. Fatty changes were found in the kidneys after death. The liver was also found to be degenerated, and fatty changes were detected on microscopic examination. The last case was that of a boy, aged 1 year and 9 months. He was operated on for the radical cure of a right inguinal

hernia. The operation lasted 15 minutes. He recovered well, but next day he vomited some dark fluid and was almost comatose, but never restless. The urine showed albumin, diacetic acid and acetone. The breath smelt also of acetone. Next day he was much better, and the vomiting ceased. The odour of acetone disappeared. Ultimately he made a complete recovery. It is interesting to note that this case recovered although neither alkaline nor infusion treatment was adopted. Bride's cases are two in number. The first was a female child aged 3 years, operated on for double talipes equino-varus, the result of rickets. The chloroform administration lasted for 20 minutes. Twenty-two hours after the operation the child was comatose, and acetone was present in the urine, but no diacetic acid could be detected. Ten hours later death occurred. General convulsions were present in this case as well as coffee-ground vomiting. Fatty changes were found present in the liver and kidneys. The second case was also a female, aged 14 years. The operation performed was one for double knock-knee, and the chloroform anæsthesia occupied only 13 minutes. Twenty-four hours later she commenced to vomit dark-coloured material, and acetone and diacetic acid were found present in the urine. The liver was slightly enlarged and painful on palpation. She ultimately recovered. It is interesting to observe that both of Bride's cases were markedly rachitic. Wilson reports a case from Paddington Green Hospital. A female, aged 5½ years, was admitted with signs of tuberculous disease in the neck of the right femur and upper end of the bone. She had previously suffered from "periodic attacks of sickness and bilious vomiting." She was of a very neurotic and excitable temperament. The urine contained neither acetone nor diacetic acid. The operation was performed a week after the child's admission into hospital. During the next two days she was very languid and apathetic. Nausea and retching set in and continued in spite of treatment. She lost sphincter control. She suffered from excessive thirst, and this was a marked symptom in the case. On the third day a faint odour of acetone could be detected in the breath. On the morning of the fourth day the patient was deeply jaundiced, and the urine gave a faint reaction to the tests for bile, but contained no acetone. On the same evening she became wildly excited and shrieked aloud, and complained of considerable epigastric pain. She vomited some blood. The odour of acetone was now more marked. During the night the restlessness continued, but the next day she was much quieter, though evidently becoming comatose. In the evening irregular, panting breathing set in. At the sixth day after the operation acetone was found in the urine for the first time, with trace of albumin, but no diacetic acid. She eventually regained consciousness on the eighth day. Acetone now began to be excreted in larger amount, and in the evening she became once more excited and died in a few hours. Post-mortem, definite fatty changes were found present in the liver and kidneys. The special features in this case are the delay in the excretion of acetone in the urine and the unusually prolonged course of the illness. The case did not end fatally till 7½ days after the onset of the symptoms.

Charitable Donations and Bequests.—The late Mr. James Burnett, of Hobart, has bequeathed £75 to the Hobart General Hospital. At the monthly meeting of the Sydney Hospital board on the 1st instant a cheque for £100 was received from the estate of the late Archibald Forsyth.

MEDICAL MISCELLANY.

JOHN D. ROCKEFELLER has announced his intention of making an additional gift to the Rockefeller Institute for Medical Research, which will bring the aggregate of his donations to the Institute up to \$4,500,000. This was made known in a letter from his son addressed to Dr. Holt, secretary of the board of trustees, in which he says that, understanding that in the judgment of the board, a hospital building is desirable in order to facilitate the work of research for which the institute was founded, Mr. Rockefeller offers to provide for the purchase of land and the erection and equipment of a suitable building at an expense of \$500,000. His purpose is stated to be to enlarge the scope and practice of the institute, and "in grateful recognition of the services of Dr. Simon Flexner, as director, rendered in those orderly and progressive scientific investigations, which sanctioned and inaugurated by the board, and aided by his associates and assistants, led him at length to the discovery of a cure for cerebro-spinal meningitis." The hospital will be situated a little south of the present building of the institute, and it is needless to say that its construction and equipment will include all the latest improvements available. Special attention will be given to the requirements of open air treatment, and there will be departments for the most efficient hydro- and electro-therapy. While patients suffering from all classes of diseases, except contagious ones, will be received, it is especially desired that cases of the rarer forms of disease shall be sent to the hospital.

The sixteenth anniversary of the formation of the Japanese Red Cross was celebrated in Tokio on June 1st, by a meeting held in Hiliga Park in the presence of the Empress. The society has a membership of 1,414,225, and the value of its property exceeds seven million dollars. On its medical staff are 212 doctors, 143 pharmacists, and 668 male and 2701 female nurses. Since the war two large hospital ships have been added to those already in use.

Owing to the prevalence of bubonic plague in Venezuela, the Cuban ports, with the exception of Mariel, where there is a quarantine station, have been closed to vessels from that country. In Ecuador the plague seems to be well under control, though between May 8th and June 3rd, 42 new cases developed. Five fatal cases have been reported from Trinidad, and every precaution is being taken to prevent its spread. President Castro has declared La Guayra free from plague and open to navigation, yet in spite of his assertion the plague continues to claim new patients daily.

Dr. F. P. Baetjer, of Baltimore, was compelled to undergo an operation for the removal of one of his eyes, injured in X-ray work a short time since. Dr. Baetjer began his studies on the physiological effect of the rays ten or twelve years ago, shortly after they were discovered by Professor Röntgen. Trouble with the eyes in connection with the X-rays seems to be unusual, though it is known that the eye is sensitive to the rays.

It is announced that a psychiatric clinic, modelled after that of Kraepelin, in Munich, is to be established in affiliation with the new general hospital at Toronto. If such a clinic is established it will probably be the first of its kind in America, although the psychiatric department connected with the University of Michigan is not unlike it in design.

There were recently held in the grounds of the Perkins Institution for the Blind, in Jamaica Plains, an athletic event in which the contestants were blind. Coincidentally with this contest others were held in various States at schools for the blind, and the final results were sent to Columbus, Ohio, where the award of prizes was made. Sixteen teams were entered, and it is said that by simple devices for certain of the events in which eyesight would seem to be absolutely essential, creditable records were made. The affair, under the direction of the National Associations for the Blind, was the first of its sort held in this country.

A pavilion for consumptive members of the various trades unions of Albany, U.S.A., is to be erected on the grounds of the hospitals in that city, in accordance with a resolution passed by the Central Federation of Labour, appropriating \$500 for the purpose. A structure 50 x 20 feet is contemplated, the floors and roof built of wood, walled by canvas, and capable of accommodating 12 patients.

Appendicitis is said to be extremely rare among the Chinese, although they are much given to bolting food and eating indigestible victuals, and often suffer from exposure to cold, excessive exertion, and other evils which would predispose to the disease.

Since the middle of June six new cases of plague have been reported in Trinidad, and active steps are being taken by the authorities in cleaning up the city and in destroying the rats. In Jamaica, also, the extermination of rats has been begun as a precautionary measure.

It is estimated that the number of cases of suicide among German school children between the years 1880 and 1903 exceeded 1000. There were more cases of suicide among boys, in the proportion of four boys to one girl, under 15 years old, and 48 to one above this age. The causes are attributed in 336 cases to fear of punishment, in 70 to mental disorders, and in 68 to intemperance. Other cases were disappointments in love, despair induced by the premature reading of Nietzsche and Schopenhauer, and religious doubts.

The congress of the Royal Institute of Public Health was formally opened by the Duke of Devonshire at Buxton, England, on July 18th. The president in his address dealt mainly with the question of tuberculosis in relation to milk supply, and pleaded for something like finality in the regulations imposed on farmers in the matter.

The South African *Medical Record* reports that "a deputation, representing the three medical societies of the Transvaal, recently waited upon the Colonial Secretary to represent to him the inadequacy of the salary offered (£600 rising to £700) for a Government bacteriologist, to secure and retain the services of a competent man. The Minister's reply was that as he was advised that he could get a man at that salary he did not feel called upon to offer more. There is no doubt that he will get a man. Probably, such is medicine, he would get a man for £300; but it is absurd to suppose that in a country so extensive as the Transvaal a good man will remain contented with such a rate of remuneration, a bare living wage, more especially as the corresponding veterinary post carries about double the pay. But then, in South Africa, the health of human beings is never viewed as of half as much importance as that of animals, as the perusal of any set of estimates will show."

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Windfall for the King's Hospital Fund—The General Medical Council—The Training of Mothers—The Installation of the New Chancellor of Cambridge University—St. Thomas's Hospital—The Work of the late Lord Kelvin.

THE following letter has been forwarded by Lord Mount-Stephen to the Prince of Wales, as President of King Edward's Hospital Fund:—"17 Carlton House Terrace, S.W., May 23, 1908. Sir,—I have much pleasure in now forwarding the certificates of the 5000 shares Great Northern Railway Company of the United States, which I mentioned some weeks ago to your Royal Highness it was my intention to give to King Edward's Hospital Fund as an addition to its invested capital. The annual income from these shares, say £7000, will make up my total contribution to the fund to a little over £30,000 a year, and will raise the total income of the fund from investments to nearly £60,000 a year. It has occurred to me that your Royal Highness might persuade a few of the friends of the fund to unite in raising the further capital sum required (say, £300,000) to increase its income from investments to £75,000 a year. If this were accomplished I confidently believe that King Edward's Hospital Fund would then, with its subscriptions and income from other sources, be in a position to distribute not less than £150,000 a year among the London hospitals. I need not say what a great pleasure it would be to me to see the fund permanently secured in that position, which it should not be forgotten is the position contemplated by the King when his Majesty founded the fund more than ten years ago. I have always regarded the King's Hospital Fund as the most useful and deserving of all the London charities, and that must be my excuse for venturing to make this suggestion. Permit me to add that I hope, when the finance committee decide on changing any of the securities in which my contributions are at present invested, they will not be tempted to reinvest in what are called trustee securities.—I am, Sir, your Royal Highness's most obedient servant, MOUNT-STEPHEN. H.R.H. the Prince of Wales, K.G., etc." In 1902, and again in 1905, the fund received £200,000 from this generous patron. His present gift at to-day's market value of Great Northern Railway shares amounts to over £130,000.

The 87th session of the General Medical Council was opened on May 26th at the offices of the Council in Oxford-street; Dr. Donald McAlister, the president, being in the chair. In the course of his inaugural address, the president said that the existing difficulties in the way of medical reciprocity with the Province of Quebec had been removed by the spontaneous action of the local authorities. The modification of the provincial regulations which they proposed had proved to be satisfactory to the King in Council. Accordingly an order was issued by the Privy Council on February 29th recognising the Province as a separate British possession and applying to it the provisions of Part II. of the Medical Act, 1886. In pursuance of the Order in Council two Universities, namely, the McGill University of Montreal and the Laval University of Quebec, had submitted to the executive committee particulars of their medical curricula and examinations with a view to the recognition of their degrees for the purpose of registration. The committee had satisfied itself that

the degree of M.D. granted by these important bodies furnished a sufficient guarantee of the proficiency of their graduates, and in accordance with the council's standing order had agreed that they should be recognised under the conditions prescribed in the Medical Act. He learned that the War Office authorities were prepared to offer to Quebec graduates, registered in this country, the same facilities in respect of commissions in the Army Medical Service as were enjoyed by registered graduates from Nova Scotia. It was to be hoped that the recognition accorded to the two provinces might have the effect of inducing the other provinces of the Dominion to reconsider the question of reciprocity from a national rather than a local point of view. The committee appointed in November to consider the question of restraining medical practice by unqualified persons was instructed to ascertain the present state of the law respecting such practice in the various portions of the British Empire and in foreign countries. The difficulty of obtaining remedial legislation, even for admitted evils, affecting the practice of medicine was illustrated by the slow progress of the Medical Companies Bill in the House of Commons. Unless special facilities were afforded by the Government little progress with the bill could be looked for in this session. In conclusion he reminded the council that at its next session it will have completed the first half century of its existence, and he suggested that the jubilee should be celebrated by a friendly reunion to which all past members of the council should be invited. The Executive Committee brought up a report on the matter referred to by the president of medical reciprocity with the Province of Quebec, stating that they had agreed that the two Universities named should be recognised under the conditions prescribed in the Medical Act. The report was received and entered on the minutes, and a resolution was passed recording the Council's satisfaction at the establishment of reciprocal relations with the Province of Quebec, and its desire that similar relations might soon be established with other provinces in Canada. Seven tables showing the results of various professional examinations and competitions were received. Dr. Saundbey, of Birmingham, moved:—"That in future such regulations of the General Medical Council as have been passed from time to time relating to the conduct of members of the medical profession shall be included in the matter published in the 'Medical Register.'" After some discussion the proposition was agreed to. On the motion of Sir Hugh Beevor it was decided to appoint Mr. Peyton Beale, F.R.C.S., assistant examiner in surgery, to the Apothecaries Society of London. The president announced the removal from the register at his own request of the name of Dr. John Shaw. The rest of the sitting was concerned with a debate on the reports on the examinations of the Apothecaries Hall of Ireland. The time of the council was occupied for almost five days with the consideration of penal cases, the most important and tedious being the Catford case, the ultimate decision in which was given against Mr. John Papa Nicolas, who was judged to have been guilty of infamous conduct in a professional respect and whose name in consequence was ordered to be erased from the register. On Tuesday, June 2nd, reports were received from various committees, and the new committees of council for the ensuing year were appointed. Mr. H. E. Allen, the registrar, was reappointed. On account of the length of time occupied by the Catford case several items which had been put upon the agenda for discussion were postponed until next session. The sittings concluded on Wednesday, June

3rd, with a vote of thanks to the president, proposed by Dr. Mackay.

About a year ago a School for Mothers was started in Somers Town for the chief purpose of diffusing knowledge concerning the management of children and the proper methods of rearing them so that they might be given the best chance of becoming vigorous men and women. The institution, since its inauguration, has done, in a quiet and unostentatious way, much useful work. Dinners have been provided for suckling mothers; lessons have been given on foods and their value; classes have been conducted for instruction in cookery; tuition has been given in dressmaking and in household economy; a club has been instituted to help mothers financially; and evening conferences have been instituted to which husbands and fathers have been invited. An account of the first year's work of the school was given at the annual meeting of the society held at the St. Pancras Town Hall on June 16th under the presidency of the Bishop of Ipswich. In the course of the report it was shown that in ten months the school, which is situated in Charlton-street, Euston-road, had been visited by 218 babies under one year of age; that close upon 2000 dinners had been distributed to nursing mothers; that there were satisfactory attendances at the lectures on feeding, fresh air, cleanliness, and sickness; and that a large amount of successful home-visiting had been accomplished. The chairman, who was at one time Vicar of St. Pancras, said that the society existed to enlighten the ignorance of parents, and it was because it meant a permanent contribution to the strength, happiness, and welfare of the race that the work was welcomed. Mrs. A. L. Smith moved the adoption of the report, and said that ignorance was more often a cause of infantile mortality than poverty. General Hamilton Evatt seconded, and declared that the work was of Imperial importance, for it would do much to decrease the number of recruits rejected on account of physical unfitness. The real Little Englander was the slum child who grew up to be unfit to take his proper place in the world. It was better to spend money on the child than on the prisons. The report was adopted.

The Army Council has decided to establish an advisory Council in connection with the formation of a nursing service for the general hospitals of the territorial force. The advisory council will frame rules for the admission of nurses into the nursing service and make such recommendations as may seem necessary for the administration of the service, and for the appointments of matrons, sisters and nurses thereto. Her Majesty the Queen has graciously consented to become president of the nursing service, and has approved the appointment of the Duchess of Montrose as vice-president. The advisory council is constituted as follows:—Chairman, Surgeon-General Sir Alfred Keogh, K.C.B., K.H.P., Director-General Army Medical Service. Members: The Duchess of Montrose (vice-president), the Countess of Derby, the Countess of Jersey, Lady Grenfell, Lady Helen Munro-Fergusson, Miss Haldane, Miss Cox-Davies (matron Royal Free Hospital), Miss Hamilton (matron St. Thomas's Hospital), Miss Hughes (Queen's Jubilee Institute), Miss McCall Anderson (matron St. George's Hospital), Miss Ray (matron King's College Hospital), Miss Vernet (Middlesex Hospital); Miss Sidney Browne, R.R.C. (late matron-in-chief Q.A.I.M.N.S.), secretary.

On June 17th Lord Rayleigh was formally installed as Chancellor of the University of Cambridge, in succession to the late Duke of Devonshire, and honorary degrees were conferred on the Premier and others.

The proceedings commenced in the forenoon with a levee at the Fitzwilliam Museum, where about 200 members of the Senate were present. Luncheon was served to a large party of ladies and gentlemen at Gonville and Caius College. A procession was afterwards formed in the Library Arcade, and during its progress to the Senate House the installation march, composed by Professor Sir C. V. Stanford, was played by the band of the Royal Engineers. In the course of his address the Chancellor said:—"In taking my place for the first time in this central building of the University, it seems natural, though I believe all precedents are against me, that I should not do so altogether in silence. And the first note that must be struck is one of regret that there should be any occasion for my presence here at all. The Chancellor whom we lament was a man of great eminence, whose impartiality and public spirit had gained the confidence of all his fellow-countrymen, and we had hoped that his tenure of office would be much further prolonged. There are those, and I include myself among the number, who held that the University might have done well to choose as his successor someone who would command the same kind of influence, but I could not refuse to fall in with what seemed to be the general wish that I should undertake the duty. No man, however little ambitious, could fail to be sensible to the high honour attaching to this office. I thank the University for their confidence. In theory the functions of the Chancellor are rather wide, but in practice most of them are deputed, certainly an excellent arrangement when the University can dispose of such services as those rendered by the present and, I believe, many recent Vice-Chancellors. It carries me back a long while, but my principal associations with this place are connected with certain feverish hours spent in trying to persuade examiners that I knew more than I really did. To-day I have a more pleasant office in recognising, on the part of the University, the services of distinguished men, many of them friends and instructors, who will be presented for honorary degrees by the Public Orator." The ceremony of conferring honorary degrees was then proceeded with, the recipients being the Premier, the Duke of Northumberland, the Earl of Halsbury, Admiral Sir John Fisher, Sir Hubert von Herkomer, the Hon. C. A. Parsons, Sir G. O. Trevelyan, Sir James Ramsay, Sir Andrew Noble, Sir William Crookes, Mr. Rudyard Kipling, Professor Horace Lamb, Professor G. D. Liveing, and Professor Alfred Marshall. When the congregation was dissolved there were three cheers for the Chancellor, and the students sang "For he's a jolly good fellow." The band played the national anthem as the Chancellor drove to Trinity College. A garden party at King's College followed, and in the evening a dinner was given at Trinity College.

The prizes gained by the students attending the School of Medicine at St. Thomas's Hospital were distributed on June 25th. The treasurer of the hospital, Mr. J. C. Wainwright, who occupied the chair, drew attention to the fact that St. Thomas's had room for 90 more beds, which could not be opened for lack of funds, and made an appeal to the charitable public to relieve the institution of this disability. The prizes were given away by Sir Charles Bruce, who in the course of his remarks spoke of tropical medicine as an instrument of empire, an agent of good government and civilisation. So great a change had it already made in our tropical dominions that appointments in Africa, formerly dreaded by British officials, were now eagerly sought by them. The most successful missionary enterprises associated religious teaching with

the practice of medicine, not a surprising fact, for the natives learned that the white man's medicine could do what their propitiation of evil spirits had failed to do. How great was the territory over which we could exercise this beneficent influence few people realised, for the great attention given of late to the self-governing colonies had prevented many from noticing the enormous development of our other possessions. We had 4,000,000 square miles of tropical territory, or more than a fourth of the whole Empire, and the population exceeded a fifth of all under the British crown. St. Thomas's Medical School might play a great part in helping to extend the blessings of medical research to these tropical lands, thus exhibiting in the best way that sense of grateful loyalty which was the chief defence of nations. Sir Charles Bruce, having been a colonial Governor during the whole of Mr. Chamberlain's colonial administration, said that he was able to bear testimony to the enormous service done to tropical medicine by the right honourable gentleman, and he expressed the earnest hope that this assistance would be continued unstintingly by the Government, whatever particular party was in power.

At the ordinary meeting of the Faraday Society, held on 26th May, in the library of the Institution of Electrical Engineers, Sir Oliver Lodge, of Birmingham, delivered his presidential address, for the subject of which he chose "Some Aspects of the Work of Lord Kelvin." The following epitome of Sir Oliver's lecture is taken from the *Morning Post*.—He said that when a man of the first magnitude works on a single subject from 20 to 80 years of age no critic could do him justice. Proceeding to consider Lord Kelvin's philosophy of the kinetic theory of solidity—the view that solids could be made of fluids in motion—Sir Oliver said that some years before Lord Kelvin's death he seemed to have abandoned the views that he had previously held. He would perhaps have liked, if he had found it possible, to have adopted the idea of a connecting medium through space, but at times he seemed to be satisfied with the idea of forces acting through empty space. This, however, Sir Oliver thought, might have been but a stepping-stone to a greater theory. What great generalisation would be associated with his name? The lecturer could find nothing greater than what emanated from him in 1851, when he was immersed in the doctrine of energy. The keenness and penetration of his mind at that epoch were astounding. He seized the known theories of energy, and with these in his mind he brooded over the whole world of physics and made some beautiful discoveries, especially those connected with the development and application of the doctrine of the conservation of energy and with his theory of thermo-dynamics. Later he became more immersed in the work of the world, and made some practical discoveries; but in the lecturer's view nothing since Newton came up to Lord Kelvin's discoveries between 1846 and 1851. The whole development of the subject of thermo-dynamics had received great stimulus from him. It had been supposed that the amount of heat that went away to the condenser was equal to that supplied to the boiler, but now it was well understood that some heat was consumed in work. It was interesting to go back half a century and to ascertain the difficulties in regard to matters that were now so well known through Lord Kelvin's application of one law to the whole domain of physics. He had given the whole theory of electrical oscillations apart from radiation. The equation that they could write glibly enough now was an inspiration half a century ago. It would be many generations, probably many centuries,

before the general public could appreciate the work of the mid-Victorian period in science. It needed much insight at that time to attribute to electricity something akin to specific heat. Lord Kelvin said that he arrived at this by analogy. He investigated the whole law of thermo-electricity, and he met with the good fortune that often follows those who are determined to risk something. His calculation might not have been true, but it turned out to be true. Sir Oliver referred to the mathematical basis of Lord Kelvin's inventions of instruments, his views on the electrical theory of matter, his investigation of atoms, and his cosmic calculations. He saw no reason to suppose either beginnings or endings of the material universe or of space, but Lord Kelvin thought otherwise.

THE AUSTRALIAN UNIVERSITIES.

Sydney.—At the monthly meeting of the Senate of the University of Sydney, held September 7th, the Chancellor (Sir Normand MacLaurin) presiding, an invitation from the University of Cambridge for the University of Sydney to send a delegate to a commemoration of the centenary of Charles Darwin's birth, and the 50th anniversary of the publication of the "Origin of Species," was received. Professor Gurney, M.A., was appointed to represent the University. The application of Mr. Arthur Graham Butler, M.B., Cambridge, for admission *ad eundem gradum* was granted on the recommendation of the Dean of the Faculty of Medicine, and the degree conferred upon him. The proposal of Acting-Professor Woolnough to arrange a camp during the long vacation for school teachers engaged in teaching geology, was agreed to. Mr. J. P. V. Madsen, D.Sc. (Adelaide), B.Sc. B.E. (Sydney), was appointed to the P.N. Russell Lectureship in Electrical Engineering from the commencement of the academic year 1909. Reports were received from the Faculties of Arts, Law, Medicine, and Science, nominating modern literature, law, physiology and engineering respectively, as the branches of learning the professors of which may be ex-officio members of the Senate for a period of two years from September 30. The following students have passed the recent examination in the Faculty of Medicine:—Third Degree Examination.—Passed with high distinction: T. T. Ewing, B.A., B.Sc., H. Priestly, B.Sc., Elsie J. Dalywell, Elsie I. Hamilton-Browne. Passed with Distinction.—L. R. Parker; L. W. Dunlop, H. T. Marsh, *æq.*; Mary B. Burfitt, B.Sc., H. R. Beatty, A. D. Barton. Passed with Credit.—J. C. Storey; L. A. Dey, Lilian A. Maclean, *æq.*; L. H. Foy, B.E., C. N. Paul. Passed (alphabetical).—G. A. Blumer, F. S. Brierley, R. J. English, J. F. G. Fitzhardinge, Margherita M. Freeman, J. J. Luddy, C. L. S. Macintosh, G. D. Macintosh, W. F. Matthews, W. C. Petherbridge, E. E. Pittman, A. N. Purves, V. M. Rich, R. Roger, S. N. Rorke, T. W. G. H. Schenk, E. T. C. Schmidt, Clara R. Smith, C. N. Smith, J. S. Smyth, K. M. Whiting. Operative Surgery and Surgical Anatomy.—Pass—Mabel A. Murray Prior.

Some time ago, owing to the prevalence of plague at Honolulu, the health authorities of Sydney adopted the usual precautions in respect of vessels arriving in Port Jackson, which had called at Honolulu. The necessity for these restrictions having disappeared they have now been abandoned, and Honolulu is again regarded as a clean port.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of August, 1908:—Registered deaths in the metropolitan municipalities during August numbered 495. This figure has been obtained after the distribution to their proper districts of deaths in general hospitals and hospitals for the insane, and is equivalent to an annual death-rate of 10·44 per 1000 of the estimated population. When corrected by the inclusion of the metropolitan proportion of the deaths in the Parramatta, Rookwood and Liverpool Benevolent Asylums, the death-rate is 10·94 per 1000. Infectious diseases caused 22 deaths, of which puerperal fever caused 3, diphtheria 7, scarlet fever 3, influenza 3, and typhoid fever 1. Diarrhoeal diseases caused 7 deaths, a very low record even for August. Phthisis caused 43 deaths, cancer 38, Bright's disease 23, and diseases of the heart and blood vessels 78. The first two mentioned are rather above the average record in August, while the two latter are rather below the average. Respiratory diseases with 80 deaths were less fatal than usual. Among infants under 1 year of age 73 deaths occurred. This is equal to an infantile mortality rate of 56 per 1000 births, which is one of the lowest ever recorded in Sydney. The number of attacks of infectious diseases notified numbered 164, to which total scarlet fever contributed 97, diphtheria 53, and typhoid fever 14. All these diseases were less prevalent than usual. No case of plague occurred, but one plague rat was taken on one of the wharves of Darling Harbour. Within the city of Sydney eight cases of pulmonary consumption were notified under the City Council's by-laws, and one dwelling was disinfected by the Council's trained staff after the removal of a consumptive person.

Sanitation of Hotels.—The sanitary state of the hotels in country towns is gradually being improved by the Board of Health. The work is being effectually done as opportunity offers by co-operation with the benches of licensing magistrates. These authorities have in the past for the most part neglected those parts of the Licensing Act which gave them

authority to require a certain standard of sanitary perfection. This point was perceived by the Board of Health in the course of the systematic inspection of the larger country towns, which, during the past three years, it has been carrying on as rapidly as the small staff at its command made possible. Consequently it gave its inspectors instructions to make a separate report upon the public-houses in such towns. These reports, having been transmitted through the Department of Justice, have met with attention, with the result that in a good many towns improvements, which will add vastly to the comfort as well as to the health of travellers, have been effected.

New Milk Standard.—The following standard for milk has been fixed by the Board of Health, and has been approved by the executive council:—“Milk shall contain not less than 12 per centum of natural milk solids, of which at least three and two-tenths shall be genuine butter-fat.” The standard has been fixed on practically the same basis as that adopted in Great Britain and the United States. It is considered very reasonable, and not difficult to maintain under any ordinary conditions. The standard has been fixed as a guide to milk vendors and buyers, as well as to magistrates who may be called upon to decide cases in which adulteration is alleged.

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, August, 1908:—

Colour	..	..	..	23° Brown.
Clearness	..	..	..	Marked.
Odour	..	..	..	Nil.
Suspended matter	..	..	..	Very slight.
Total solids	..	..	..	8·3000
Chlorine	..	..	..	2·9500
Nitrogen as free ammonia	..	..	..	·0000
“ „ albuminoid ammonia	..	..	..	·0114
“ „ nitrites	..	..	..	·0000
“ „ nitrates	..	..	..	·0056
Oxygen absorbed in 4 hours	..	..	..	·0968
Permanent hardness	..	..	..	1·9
Total hardness	..	..	..	3·25

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during August, 1908:—

Final Effluents from -	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C
			Suspended Solids.	Chlorine.	Nitrogen as					Oxygen Absorbed	Organic Nitrogen.	Oxygen absorbed in Four hours.	
					Free Ammonia	Organic N.	Nitrates	Nitrites	Total N.				
Ohatswood ..	.. Faint	Nil	·55	6·6	·168	·110	·018	1·766	2·062	·194	61·0	80·6	No decomposition
Folly Point..	.. M'k'd	Nil	3·70	7·6	·531	·410	·057	·359	1·357	·646	63·0	44·8	„ „
Balmoral ..	.. Slight	Nil	·70	10·0	·784	·213	·010	1·548	2·554	·664	87·7	78·4	„ „

Note.—Irregularities in figures due to heavy rain during month.

Tasmania.

Health of Hobart.—The half-yearly report of the City Health Officer, Dr. Sprott, states:—"The population is estimated at 32,719. The total number of deaths registered for the six months was 194, viz., 98 males and 96 females. The death-rate was equal to 11·86 per 1000 per annum. The principal causes of death were:—Heart disease, 22; diseases of the digestive organs, 22; phthisis, 15; cancer, 13; old age, 13; cerebral hæmorrhage, 12; pneumonia, 10; premature birth, 8; diarrhoea, 7; and the remainder were of a general nature. The ages at which deaths took place were:—Under 1 year of age, 57; 1 to 5 years, 9; 5 to 65 years, 77; 65 years and over, 51. The total number of births for the six months was 404, being 200 males and 204 females, giving a birth-rate equal to 24·72 per 1000 per annum. The number of deaths under 1 year was 57, giving an infantile death-rate of 114 per 1000 births. The principal causes of infantile deaths were:—Diseases of the digestive organs, 16; wasting diseases, 12; premature birth, 8; diarrhoea, 6; and the remainder were of a general nature. There were 64 cases of notifiable infectious diseases reported, viz., 33 cases of typhoid, 29 diphtheria, 1 puerperal fever, and 1 of scarlet fever. Disinfection was after every case carried out by this department. There was one death from typhoid fever, and two from diphtheria. Early in May it was found necessary to hurriedly equip Vacluse for the reception of cases of diphtheria, as the general hospital diphtheria ward of six beds was then full up. 64 houses have been reported on as being insanitary and unfit for habitation. 25 were then condemned, and notices served forbidding their occupation. 17 have been demolished by order of the local authority. The balance are either unoccupied or the time given to vacate the premises has not yet expired. 39 houses were, by notices served on the owners, ordered to be repaired, with an intimation at the same time that failure to comply would lead to condemnation of the property. A large number of general nuisances were also abated. 29 samples of milk were purchased for analysis, and three proved to be adulterated with water to the extent of from 16 to 23 per cent. Legal proceedings are now pending in these cases. Eight vendors were also prosecuted for selling milk without a license. Fines amounting to a total of £5 10s were inflicted. In connection with the purity of the food and drug supply, a deputation from the local authority was received by the Chief Health Officer, who intimated he would recommend the Government to establish a central food depôt, so that foods and drugs could be analysed for local authorities, such work to be either carried out free of charge or at a slight cost. The local authority has since asked, by resolution, for fresh legislation in the direction above indicated. The attention of the department has, amongst other matters, been directed to the sanitary condition of the dairies in the city, and every precaution is taken to ensure the purity of the milk supply. In addition to the routine matters, special reports have been made dealing with: (1) Yard surface drainage; (2) the position of w.c.'s in relation to dwellings; (3) factories and workshops (these have been forwarded to the Metropolitan Drainage Board for the consideration of that body); (4) conveniences for ladies; (5) the provision of an infectious diseases hospital, etc.

Queensland.

Bubonic Plague.—Dr. B. B. Ham, Commissioner of Health, reports for the five weeks ending

September 12th:—*Brisbane.*—No case of plague has occurred in man during the period. The guinea-pig inoculated from plague case died on the 14th instant. *Plague in Rodents.*—During the period 1977 rats and 181 mice were destroyed, 1501 rats and 181 mice were examined, and 6 rats were found to be infected. The last infected rat was found on September 4th.

West Australia.

A bulletin has been issued by the Central Board of Health for the first time this year. It is intended that the bulletin shall be issued monthly, but just at the beginning some little difficulty was experienced, and consequently the bulletin has been issued in two quarterly parts. This bulletin will contain news of the work done by the Health Department, and intimations of any new legislation in the form of regulations or by-laws. It is sent to all local boards, and is issued as a medium for notifying them of necessary changes in administration, which would otherwise have to be conveyed to them in a series of circulars.

The Health Bill is still under consideration, and such modifications as suggest themselves from time to time are introduced. It is expected that this bill will come before the next session of Parliament and that it will be placed on the Statute Book before the end of the current year.

Up to the present notifications of infectious diseases have been made only to the local board, and these have to furnish a weekly report to the central board. There have now been drawn up books containing duplicate notification forms—one to the local board of health and one to the central board of health, so that the custom followed in the eastern States will be adopted here.

The Health of Melbourne.

Abstract of the Report of Dr. J. Jamieson, the Medical Officer of Health.

Population.—The estimated population in the various wards of the city in the middle of the year, according to the Government Statist, was 98,720. Adding to this the average number of inmates of the large asylums, 977, a total of 99,697 is reached. Taking this as the basis of calculation, the mortality for the year was 14·1 per 1000. Deducting from these figures the number of residents in the Benevolent Asylum, and the number of deaths, the rate obtained is 12·54 per 1000. In the four quinquennial periods, beginning with 1886 and ending with 1905, the lowering of the mortality rate has been from 19·54 to 16·29, 14·23, and 13·96 per 1000.

Infectious Diseases.—The mortality from epidemic diseases was in most respects favourable. The deaths reported were—from typhoid, 3; from diphtheria, 13; from whooping cough, 6; from influenza, 15; and from measles, 6. There were no deaths reported from scarlet fever.

The cases notified under the Act were as follows:—Typhoid, 34; diphtheria, 254; scarlet fever, 11; the other diseases not being notifiable. In a considerable number of cases it was found, on inquiry, that infection had not been acquired in our district. The figures of notification, as compared with the deaths, again show that the case mortality has been extremely low. Notably diphtheria, in recent years, has lost much of its fatality, from the adoption of the antitoxin system of treatment. It is also true, but for reasons less known, that scarlet fever has taken on a less severe

character of late years. Only three deaths from diphtheria occurred at private houses during the year. Almost all severe cases are now removed to the Infectious Diseases Hospital, and as prompt removal is the rule, the isolation thus provided for cannot fail to be of advantage in preventing the spread of the disease in families, and from house to house.

It is specially interesting to trace the course of typhoid outbreaks in successive periods, as giving one of the best indications of the sanitary condition of the district. The indications are not so exact in the case of diphtheria, which spreads more by direct contagion from person to person. In the case of both diseases there has been a remarkable decline in the mortality rate of late years. Though the reduction of the death rate in both diseases since the first of the periods (1886-90) is plain, it is much more striking in the case of typhoid, both because it has been relatively greater and because it has been almost steadily continuous. Some further improvement may still be expected, though the disease is now almost at a minimum, and benefit may be got from four sources:—(1) The further extension, till completion, of the sewerage system; (2) continued guarding of the water supply, and the greater use of proper filtration methods; (3) constant supervision of the milk supply; (4) more supervision of patients during and even after convalescence.

In the case of diphtheria we have to look chiefly in other directions for the great improvement in the mortality rate since the first of the periods. It is eminently a contagious disease, spreading largely by the gathering and close contact of children in schools and other meeting places. The improvement shown has been chiefly owing to notification of cases now allowing of isolation, in ever greater measure, either at home or in the Infectious Diseases Hospital; to more careful exclusion from school of children suffering from sore throat; and to the cleansing and disinfection, now regularly carried out, in houses where cases have occurred. More can still be done in these directions all over the metropolis, and attention to them is needed in all the metropolitan districts before anything like the full result is obtained. But while the local sanitary authorities have their part, the Government, as represented by the Education Department, could do much to guard the health of the child population by providing some method of medical inspection at short intervals of the children in attendance at State schools.

The importance of tuberculosis, as a cause of sickness and mortality, is greater than that of any or all of the epidemic diseases, since year by year it causes a larger number of deaths than all of them taken together. This is still true, though there has been a great lowering of the mortality in recent years. While the steady lowering of the death rate throughout the period from 1896-1907 is marked and continuous, it has been more rapid in the last years, i.e., in the short interval between 1903, the middle year of the third quinquennium, and 1907, from 195 to 134.

Many causes have contributed to bring about the decline of mortality, and many kinds of sanitary improvements have helped in the result. It is in part due to the special efforts included in the so-called "crusade against consumption," but much of the good effect must be credited to such general sanitary measures as improved drainage, better ventilation, and generally to the results of legislation for the improvement of conditions in shops and factories; but it must also be claimed that a considerable share in the benefit is due to the steady work carried on by the Council for more

than 20 years in the inspection and condemnation of dwellings found to be unfit for occupation. In that time about 2500 such condemnation orders have been issued, necessitating thorough cleansing at least, and very often correction of structural defects causing dampness in walls and under floors. As consumption is largely due to a house infection, there can be no question about the good that must have accrued in this respect, as well as in regard to health conditions generally.

During the year 236 cases of consumption were notified. All cases are now kept more or less strictly under observation, special attention being given to those in an advanced stage of the disease, as being in the dangerously infective stage. In the case of poorer patients, spittoons are provided free of charge where it seems advisable, and directions for their proper use, as well as a circular giving rules for general guidance, are supplied. In case of death or removal prompt steps are taken for the cleansing of at least the room or rooms chiefly occupied. Whenever it is necessary from the state of repair, steps are taken to have the defects remedied. Disinfection, in almost all cases, is by spraying with a strong solution of formalin or cyllin, and it is done by the corporation officers free of charge. During the year 360 rooms were disinfected, and in 106 the ceilings and walls were thoroughly cleansed and renovated. As cases are more regularly and promptly notified, in accordance with the Act, and precautions are taken in proportion, we may fairly expect to see the prevalence of tuberculosis in all its forms further steadily reduced.

Births.—The number of births registered during the year, exclusive of those in the Women's Hospital, was 2048—rather more than last year, even allowing for the increase of population. Even if an addition be made of a proportion of the births in public institutions, the birth rate can be put only at the very low figure of 23 per 1000 of population.

Infantile Mortality.—Taking the number of births and of deaths under one year, exclusive in both cases of those in the Women's Hospital, the infant mortality was in the proportion of 80 per 1000 births, a rate much lower than in any previous year. There cannot be doubt that infant mortality is greatly dependent on weather and season, a continuance of high temperature being always followed, both here and in England, by an increased mortality among infants. In 1907 there was a concurrence of favourable conditions—a cool summer and low prevalence of epidemic disease—but even then it can be claimed that the rate was remarkably low.

Various causes, and among them the comparative prevalence of epidemic diseases, must be taken into account as influencing the mortality in different years and periods; but the great improvement in recent years must be ascribed very largely to improvement in the milk supply, which is now guarded with increasing care year by year.

Deaths from other causes.—The deaths from the chief causes, other than the epidemic diseases, which really produce a small proportion of the whole, were tuberculosis, 134; diarrhoeal diseases, 68; pulmonary diseases (other than consumption), 171; circulatory diseases, 207; nervous diseases, 129; genito-urinary diseases, 133; cancer, 92.

The capabilities of the Infectious Diseases Hospital have not been very fully tried during the year. In all, 168 cases were admitted from the city, 164 of diphtheria and 4 of scarlet fever. That proper precautions are taken before patients are discharged, has been shown

by the fact that there have been no instances recorded of fresh cases occurring in the homes to which patients had returned.

The large number of cases of consumption now reported constantly raises the question of the disposal of cases, especially in the advanced stage. Some go to the general hospitals, temporarily or till death occurs, and the Austin Hospital finds room for a good number; but cases of great hardship are constantly arising for want of adequate provision for them in these institutions. Danger arises, therefore, of the spread of the disease among the other inmates of the houses in which the patients are compelled to remain, many of these dwellings being of a poorer kind.

The grant to the Bacteriological Laboratory has been continued. In 1907 the chief work done was a further investigation of the water supply, with the special object of discovering whether there was evidence of specific contamination. A number of specimens of milk and ice-cream were also examined.

Food Supply.—During the year a large number of samples of milk and other food articles were taken for analysis to Mr. F. Dunn, City Analyst. Now that the Pure Foods Act has come into operation, and regulations have been framed by the Board of Public Health, the procedure will in many respects be simplified. On the whole there has been a steady diminution of the amount of adulteration of milk and other food articles of late years. The use of preservatives in most kinds of food has now been absolutely prohibited, and as a result no preservatives were found in any samples taken during the year.

Though the inspection of dairies and dairy cattle has now been taken over by the Government, and is carried out by special inspectors, it has been decided by the Health Committee to continue the inspection of cattle depastured in the public parks. In the case of dairies and milk shops, the Council's officers still continue to exercise supervision.

Noxious Trades.—The condition of premises used for carrying on noxious trades has received a large amount of attention during the year. The difficulty has always been chiefly with those establishments which are engaged in boiling down, and the manufacture of animal manures. Many experiments have been made with a view of lessening or abolishing any nuisance arising from the escape of fumes, either from raw or manufactured material. Further calls for improvement are being made, and large reconstruction of buildings and appliances will have to be effected at an early date.

House Inspection.—During the year the work of inspecting houses, in respect of their sanitary requirements, was carried on, and mainly in the eastern and most densely populated parts of Hopetoun Ward. During the year 235 houses were certified by the officers to be unfit for occupation as dwellings. Of these 184 were repaired to satisfaction, 4 were pulled down, 4 were standing vacant at the end of the year, and in 43 repairs have not been completed.

Report of the City Analyst.—For the year ended 31st December, 1907, 325 samples of food and drink were examined; 25 of these were submitted by private purchasers in accordance with section 57 of the Health Act, 1890. The following is a brief summary of the results obtained by the analytical examinations:—**Milk**—268 samples: 228 passed the standard; 1 passed the standard, but a slight change had taken place in the constitution of the sample; 15 below the standard in percentage of total solids and solids not fat; 8 below the standard in percentage of solids not fat; 5 below the standard in percentage of fatty solids; 5 below the standard in percentage of total solids, solids not fat and fatty solids; 4 below the standard in percentage

of total solids and fatty solids; 1 below the standard in percentage of total solids; 1 below the standard in percentage of total solids and solids not fat—a slight change had taken place; 3 contained artificial colouring matter; 1 contained boric acid. **Skim milk**—1 sample: Passed the standard. **Bread**—3 samples: Contained an amount of water in excess of the standard. **Cream** of tartar—12 samples: 8 passed the standard; 4 below the standard in percentage of acid tartrates, sulphates in excess of the standard. **Ginger**—6 samples: Passed the standard. **Tinned peas**—4 samples: 1 contained an amount of copper calculated as crystallised sulphate of copper equal to 1.29 grains per lb.; 1 contained an amount of copper calculated as crystallised sulphate of copper equal to 1.49 grains per lb.; 1 contained an amount of copper calculated as crystallised sulphate of copper equal to 0.54 grains per lb.; 1 contained a minute trace of copper. **Cakes**—31 samples: 24 no artificial colouring substance was detected; 7 found to contain a colouring substance that would suggest the presence of eggs.

Report on the Bacteriological Investigations undertaken on behalf of the Melbourne City Council during the year 1907.—Dr. R. T. Bull reports that the main inquiry has been a test of the purity of the milk supply for the city. Twenty-four samples were collected and examined within a few minutes of receiving them by the gelatine plate method. The colonies of bacteria developing on the plates were then enumerated at the end of 72 hours growth at room temperature.

The total number of organisms per cubic centimetre are not alone sufficient to condemn a milk supply, as milk obtained under cleanly conditions and allowed to become stale contains as a rule enormous numbers of lactic acid bacilli, which are not only harmless but which are invaluable in the ripening of cream for the manufacture of butter, and which produce beneficial results when consumed as butter-milk or in the form of pure lactic cultures. On the other hand, uncleanly milking, faulty handling and watering may introduce harmful organisms. For this reason it is impractical to fix a standard as regards total numbers of bacteria per cubic centimetre permissible in a milk supply, without at the same time taking into consideration the character of the micro-organisms present. A considerable number of liquefying bacteria per cubic centimetre are more suggestive of an unnatural supply or uncleanly methods than total numbers. The only samples showing numerous liquefying bacteria (i.e., organisms capable of liquefying gelatine) were Nos. 1, 2, 3, 7 and 24 (3000 to 10,000 per cubic centimetre). It is very satisfactory to note that 6 of the samples (Nos. 8, 13, 16, 19, 21, 22) contained no liquefiers. As regards total numbers of organisms per cubic centimetre the figures range from 4000 to nearly 6,000,000, and sample No. 7 was the worst from both points of view, with 5,940,000 per cubic centimetre, including large numbers of liquefying bacteria.

Three samples of ice-cream selected haphazard from carts averaged 5000 micro-organisms per cubic centimetre.

Five samples of water taken from Melbourne taps in the months of March, April, and November averaged 180 micro-organisms per cubic centimetre.

A sample of beef was forwarded from the City Abattoirs by the superintendent, and contained cheesy nodules which proved to be tubercular. Further work has also been done in connection with cheesy lymphatic glands in sheep, a condition which was first investigated at the instance of the Melbourne City Council.

During the 12 months of 1907, 2586 specimens were examined from suspected cases of diphtheria, typhoid fever, and tuberculosis. The majority of these were

from hospitals and medical practitioners within the city boundaries. While the positive diphtheria cases showed a pronounced increase in 1907, the typhoid cases were less than half those of the previous year.

Several diseased rats, which proved to be affected with tumours and skin diseases, were submitted for examination. None of the animals were affected with plague.

Australasian Medical Congress.

THE Hon. Secretary for New South Wales, Dr. Arthur Palmer, of 149 Elizabeth-street, Sydney, would like all those members who intend going to Melbourne to let him know at once, at the same time stating by whom they will be accompanied. This information is required for social functions. If members would also let him know for what night they are booking sleepers he will attempt to secure a special carriage. Intending members please join at once. Will all members kindly send to the State secretaries their Melbourne addresses. There will be a Congress tea on Saturday, 17th, at the Caulfield Cup meeting for all visiting members from sister States and New Zealand and the ladies accompanying them. The bulk of the invitations will be ready for members at the Congress office, Town Hall, Melbourne, and will be delivered to members when registering themselves there. The hospitalities provided will extend to Monday, October 26th, terminating with a grand evening party at State Parliament House, given by the President of the Legislative Council and Lady Wrixon.

HOSPITAL INTELLIGENCE.

Alfred Hospital, Melbourne.—At the annual meeting of the subscribers to the Alfred Hospital, held last month, the report showed that during the 12 months ended June 30th, 2214 in-patients, 5518 out-patients, and 2451 casualties had received attention at the hospital. Of the in-patients, 1740 had been discharged cured or relieved, 74 as incurable or unrelieved, and 257 had died, leaving in the institution 149 out of the 5518 out-patients attended to, 4900 had been discharged as cured or relieved, and 618 remained on the register, as compared with 650 at the close of the preceding year. The total attendances of the out-patients numbered 23,407, whilst 73,941 prescriptions were dispensed for them. The daily average of occupied beds was 161.7, and the average stay of each patient 26.6. These figures were almost identical with those of the year 1906-1907. The death-rate (11.3 per cent.) showed no appreciable difference from that of the two previous years. If the number of those brought to the hospital practically moribund could be excluded from the calculation the rate would be much lower, for 15 patients died within 24 hours of admission, 24 within 48 hours, and 22 more within 72 hours, so that out of 251 deaths nearly one-fourth occurred within three days of the patients' admission. The amount received from in and out patients totalled £2550, and was a record sum from that source, but it was considered doubtful if the large amount of over £1700 from in-patients could be maintained in the future, because the management had decided to withdraw privileges formerly accorded patients who contributed the full cost of their maintenance—such privileges being treatment in a small ward, and visits of relatives and friends on any day between 3 and 5 p.m. The managers felt that as the establishment of an intermediate class of hospital had taken place, and been recognised with approval by the Government, the necessity to provide

at the Alfred Hospital for those who, though not actually poor, could not pay the fees demanded for treatment at most private hospitals, no longer existed. Moreover, members of the medical profession, who from time to time asserted that patients were admitted to the Alfred Hospital that could afford to pay doctors' fees would be pleased to know that for the future all class distinctions had been abolished. The average cost per occupied bed last year was £63, and of each in-patient £4 12s, as against £60 7s 4d and £4 10s 4d respectively in the previous year. These increases were inevitable, in view of the higher prices recently paid for food and coal. A comparison of the cost of maintenance with the previous year revealed the somewhat remarkable fact that, exclusive of provisions and fuel and light, a difference of only £28 existed between the two years' expenditure in favour of 1907-1908, while, under the head of administration, the figures were the same to within a few shillings. A contract for £2448 for additions to buildings, mainly to provide for new nurses' quarters, had been accepted, and it was expected that quarters would be ready for occupation by midsummer.

Victorian Eye and Ear Hospital.—The 41st annual report set forth that of 804 in-patients treated during the year, 258, or 32 per cent., were residents of the State outside a radius of 20 miles from Melbourne, 42 were from other States, 10 were wards of the State, and 26 were from other charitable institutions. Of the 6149 cases treated as out-patients, 824, or 13 per cent., were residents of the State outside the 20-mile radius, 105 were from other States and New Zealand, 63 were wards of the State, and 136 were from the various charitable institutions of Victoria. The revenue derived from all sources for maintenance, as shown by the audited balance-sheets, was £4297 19s, and the expenditure £4343 7s 10d. The sum of £123 12s 8d, brought forward from the previous year, admitted of the account being closed with a small balance. During the past year the committee had purchased from the Metropolitan Board of Works the block of land adjoining the hospital grounds known as the Tank Reserve, for which they paid £2500 cash, and let contracts for the erection of suitable buildings at an aggregate probable cost of £4000. This building, in addition to affording the surgeons much greater convenience, provided accommodation for 23 additional in-patients, raising the number of beds to 83. The building fund still showed a debit balance of £1277 2s 4d, and this would be increased by the final payment to contractors. The committee earnestly appealed to a charitable public for generous contributions for this special purpose.

Queen Victoria Memorial Hospital.—At the annual meeting of the contributors, held last month, the report of the committee showed that 288 in-patients and 3510 out-patients had been treated during the year. Of the former, 261 were discharged cured or relieved, 11 died, and 16 were remaining in on the 30th June. The out-patients averaged 57.27 daily. The committee was desirous of improving the hospital in providing better quarters for the nursing staff and a new medical ward. A sum of £1781 had been collected for the works, and the Government was prepared to hand over £2000 when the collection reached £2000. The chairman, in moving the adoption of the report, advised the committee to "go slow" in the matter of extending the institution. He agreed that the hospital had justified its existence. Mr. M. P. Fox, in seconding the motion, concurred with the remarks made by the chairman. He referred to the immense increase (50 per cent.) in the number of persons receiving relief, while there had

been only a 5 per cent. increase of the population. He had no objection to money being expended in improving the existing arrangements at the hospital.

Women's Hospital, Melbourne.—At the 51st annual general meeting in connection with the Women's Hospital, held last month, the annual report showed that the number of patients admitted to the midwifery department during the year was 1635, or an increase of 111 over that of the previous year. The number of infants born in the hospital during the year was 1405, or 182 more than in the year before. In connection with the midwifery department the death percentage of patients confined during the year was 1.199, the similar percentage of those confined in the hospital being .926. The total number of confinements since the foundation of the hospital was 36,253, while the number of patients in the hospital on June 30th last was 50. The total income to maintenance was £6418 for the 12 months, as against £6843 for the previous year. Mention was also made of the limited accommodation of the hospital and of the movement towards a new building. The hon. treasurer said the apparent falling off in the total income to maintenance, from £6842 in 1906-1907 to £6418 in 1907-1908, was accounted for by the larger contributions towards the building fund. The expenditure on maintenance for the past year was £756 more than for 1907-1908, an increase due to the larger number of patients and to the increased price of provisions. With regard to the building fund, the credit balance on June 30th, 1907, was £1941. Contributions for this year, including £3945 raised by the Lady Mayoress' special appeal, and £1175 from various bequests, brought the amount to £7265. There had also been the Treasurer's generous action in agreeing to put £5000 on the estimates for the year. Allowing for other receipts and deducting certain expenditure, the building fund amounted to nearly £15,000. A contract had been let for £11,900, and it was anticipated that the work would be completed in about ten months time. At a meeting held before the annual general meeting it was agreed to alter the constitution so as to provide that no member of the staff of any other metropolitan hospital should be available for appointment to the staff of the women's institution. It was considered that a medical man would not have time to do justice to more than one institution and attend to his practice outside as well.

Austin Hospital, Melbourne.—At the annual meeting of the governors of the Austin Hospital for Incurables, held last month, the report presented showed that during the year the wards had been constantly occupied to their fullest capacity. Five of the 16 inmates of the children's wing had become well enough to leave the hospital. The daily average of patients treated numbered 206.5, an increase of nearly 12 on the number treated during the previous year. The average death rate, notwithstanding the increased mortality in the cancer wards, had declined to 34.5 per cent., a reduction of 5.5 per cent. on the record of the previous year. For a long time the average income from legacies and bequests had been £2500 a year, but during the past year it was only £236. This had perplexed the committee. The stringency had been relaxed, but the committee had again been obliged to pledge the vested funds of the hospital. The most distressing feature in connection with the consumptives was that many of the applicants died before room could be found for them. The pressure on the accommodation for female cancer patients continued, although the verandahs were occupied by extra beds. The space in the women's ward was altogether insufficient. The ordinary revenue had amounted to £7533 3s 5d, which was considerably

in excess of the sum received last year. The cost per bed occupied had increased from £42 7s 4d to £42 8s, owing to the increased price of food. The hon. treasurer said Dr. Norris had specially mentioned the Austin Hospital as a place where the advanced consumptives of Melbourne might be treated. That work was being done, and terms should be arranged with the municipalities for the treatment of consumptives instead of the councils building homes. For the past year the Government grant had amounted to £2250. This was said to be £750 less than it ought to be, but for the previous year the grant was only £1000. No charity was in a satisfactory position unless it could see its way clear for three months ahead.

Williamstown and Footscray Hospital, Victoria.—At the annual meeting of the Williamstown, Footscray and District General Hospital, held last month, the financial statement disclosed cash receipts for the year as £1052 14s 3d, which, with a balance brought forward of £156 10s 6d, provided a sum of £1209 4s 9d to meet the year's expenditure. This left the institution with a balance in hand of £165 16s to carry forward on maintenance account, and £159 14s 11d on building account. The in-patients treated for the year totalled 140; only 8 deaths had occurred, the most of these being hopeless when admitted; 402 out-patients applied for treatment, their total attendances amounting to 3324. The hospital at present has accommodation for ten beds for in-patients, but the daily average for the year was 11.57, two temporary beds being always occupied, and at various periods as many as fifteen patients had to be housed. This circumstance decided the committee to offer a prize of £10 for the best competitive design to provide extra accommodation for in-patients and new quarters for the nursing staff, and the selected plans had met with approval. The X-rays apparatus worked satisfactorily, and the sum of £50 had been expended on instruments to complete equipment for the operating theatre.

Victoria Convalescent Home, Hobart.—The annual meeting was held last month. The annual report was as follows:—163 patients had been received at the home, an increase of 28 on last year, many of whom stayed for a period of four weeks. Most of these patients had been paid for from the funds of the Ministering Children's League, Queen's Fund, and Samaritan Fund. The committee hoped that the increase in the number of patients was a sign that the home was becoming more useful. The committee were gratified to report that the new dining-room was an accomplished fact, and they decided to thank all those kind friends who had contributed to the special fund for that purpose. The boys' sleeping-room had been improved, and the house painted externally. Fifteen meetings had been held during the year, and the home had been regularly visited by members of the executive committee appointed at the monthly meeting for that purpose. The balance sheet showed that the subscriptions had amounted to £65 10s; fees, to £135 18s; donations, £91 1s 8d; and sundries, £9 12s; a total of £302, the interest bringing the amount to £325 9s 4d. The expenditure amounted to £325 9s 4d; the credit balance—£21 8s—was transferred to capital account, which now stands at £744 11s 11d.

Dubbo District Hospital, N.S.W.—In 1902 the committee of the Dubbo District Hospital waited upon the Government, and pointed out the necessity for the erection of a new hospital for that town. The Government Architect subsequently visited Dubbo, and reported on the matter. Mr. Vernon suggested the immediate erection of so much of a general building scheme for future requirements as to give ample accom-

modation for present needs, retaining as much of the old buildings as could be conveniently utilised, along with the new. The Government approved of this proposal, and voted £3000 for the carrying out of the new work. The new buildings have been completed. The work has been carried out under the supervision of the Government Architect at a cost of £3400. The new buildings comprise an administration block, a ward block, kitchen block, and accommodation for the medical and nursing staff. The plan also provides for the erection at a future date of a female ward similar to the new men's ward, a private ward, additional dispensary accommodation, and other auxiliary departments. At present the female ward will be found in the existing hospital, which has been altered and improved so as to bring it as far as possible into line with the new buildings.

MEDICAL NOTES.

The Sydney Hospital Directors have received a cheque for £45, a legacy under the will of the late Alexander Myers, less 5 per cent. English legacy duty. Also £50 from Tattersall's Club for the purpose of endowing a cot, to be called Tattersall's Club Cot. The St. John Ambulance Brigade has received a legacy of £50 under the will of the late Mrs. Douglas, of Osmond, Woollahra, Sydney.

Fresh Air.—Sir Philip Sydney Jones, M.D., lectured last month to the members of the Ladies' Sanitary Association on "Fresh Air in Health and Disease." The speaker defined pure air, and dealt with the evils of overcrowding, insufficient ventilation, draughts, and smoke, dust, and other impurities. Sir Philip said that since the introduction of the open-air treatment, in 1896, the mortality from all diseases of the respiratory system had fallen by more than one-half, whereas for 40 years previously the rate had practically remained stationary.

Home for Incurables, Sydney.—The annual meeting of the New South Wales Home for Incurables, Ryde, was held last month, Sir Harry Rawson presiding. The report showed that the year started with a debit balance of £549 10s 2d, on which 5 per cent. interest had to be paid. It closed after all its liabilities had been met free from debt, with a credit balance of £122 11s 2d. This was accomplished by having received in June a special grant from the Government of £600, not by way of a subsidy, but as a contribution to the purchase of the home at Ryde. The income had been satisfactory. Two substantial donations of £100 each were received, one from Mr. and Mrs. Hugh Dixon and one from Mr. J. R. Black. On July 1st, 1907, there were 24 patients in the home; since then 14 fresh cases had been admitted. Seven passed away, three left, having other provision made for them, but two of these have since been readmitted, leaving some 30 inmates in the home at the close of the year. There were 31 beds in all available.

Early Hospitals in Sydney.—In the course of a lecture before the Institute of Architects in Sydney, Dr. Andrew Houston referred to some of the early hospitals in Sydney. The first was a canvas one on the west side of the Sydney cove. By the "Justinian" in June, 1790, a portable one was received, and none too soon, for on the arrival of the Second Fleet every inch of accommodation was required. The hospital of 1788, with one ward for soldiers and another for convicts,

and the dispensary of 1790 proved altogether inadequate; but it was not till 1815 that the Military Hospital, which afterwards became Fort-street School, was erected. Messrs. Blaxcell, Riley, and Wentworth, in return for the exclusive right to import and sell rum in the colony for a certain period, contracted to build a general hospital. The foundation-stone was laid on October 29th, 1811, but patients were not received till March, 1816. This was old Sydney Hospital.

PERSONAL ITEMS.

Dr. T. W. Lee, of Wollongong, has been elected patron of the Illawarra District Association, and Dr. H. H. Lee a member of the sub-committee of the same.

Dr. Stevenson, of Moss Vale, has been elected a member of the committee of the local branch of the National Defence League.

The estate of the late Sir Thomas Fitzgerald, C.B., F.R.C.S., is valued for probate at £39,554, exclusive of certain settled life policies amounting to £8569. Testator bequeaths £200 to his old and trusted housekeeper, and £250 to the Melbourne Hospital, and the balance is left to his three daughters.

The late Dr. James Richard McInerney, of Fitzroy (Vic.), who died on July 22nd last, left estate valued at £33,311 8s 6d to his brothers, sister, and nephew.

At the last meeting of the Western Suburbs Cottage Hospital, Sydney, it was decided to perpetuate the memory of the late Dr. Traill by the erection of a memorial tablet in the entrance-hall. It was also suggested that a ward in the hospital be named after the deceased gentleman.

Dr. Theo. Mailler Kendall, formerly medical adviser to the Metropolitan Board of Water Supply and Sewerage, Sydney, is at present engaged in practice at St. Bartholomew's Hospital, London.

Dr. Pinnock has resigned his position as resident surgeon of the infirmary department at the Women's Hospital, Melbourne.

Dr. E. M. Steven, who established the hospital at Tumbay Bay, South Australia, has sold his practice there to Dr. Borthwick, who recently returned from England. Dr. Steven has purchased the practice at Millicent from Dr. Cook, who is about to pay a visit to Japan.

Dr. T. K. Hamilton, of Adelaide, has been appointed Hon. Commissioner to represent South Australia at the Australasian Medical Congress to be held in Melbourne in October, 1908.

Dr. P. F. McEvedy (a member and vice-captain of the British Rugby football team) does not intend to return to England, but is proceeding to New Zealand to practice his profession. Various members of the team recently made him presentations as tokens of their esteem, and the Guy's Hospital (London) members of the team entertained him at dinner. His large circle of friends expressed their sympathy with him owing to the accident when he broke his collar bone lately at Brisbane.

Dr. G. H. Hogg, president of St. Andrew's Society, Launceston, Tasmania, has been presented with a framed photographic group of officers and pipers, in recognition of his services to the society.

Dr. Sinclair Finlay was on September 4th made a presentation by the members of the Balmain branch of the Civil Ambulance Corps, Sydney, who recently passed their examinations under his instruction.

Dr. Douglas McWhae, recently resident surgeon at the Melbourne Hospital, is on a visit to South Australia, where it is probable that he will shortly commence the practice of his profession.

Dr. J. A. Webster has resigned his position as a member of the hon. medical staff of the Launceston Hospital, Tasmania.

Dr. H. A. Embling, of Hawthorn, Victoria, left on August 17th by the steamer "Empire" for a holiday trip to the East.

Surgeon-Major Robert Valpy Fulton, M.B., has resigned his position on the New Zealand Medical Corps.

Dr. Dowling, formerly well known as a medical practitioner at Richmond (Victoria), died at Wagin (W.A.) on September 5th, the immediate cause of death being influenza.

Dr. A. Harcourt has removed from Kingaroy to Toowoomba, Queensland.

Dr. M. Culpin has left Brisbane for Taringa, Queensland.

Dr. John G. Avery has resigned his appointment as resident medical officer at the Brisbane Hospital, and has been appointed to the staff at the Hospital for the Insane, Goodna, Queensland.

Dr. Adela Williams has removed from Kingaroy to Taringa, Queensland.

Dr. Mary C. De Garis has left Muttaborra, Queensland, for Mildura, Victoria.

Dr. Simpson has resigned his position as hospital surgeon, Geraldton, Queensland, and has been appointed resident surgeon in New Guinea.

Dr. James Adam Dick, of Randwick, N.S.W., has returned from a trip to South Africa. Whilst there he revisited the theatre of the 1899-1902 war, also made a visit to the celebrated Victoria Falls, Zambesi.

Dr. Frank Tidswell has been appointed Director of the Government Bureau of Microbiology in Sydney.

MEDICAL APPOINTMENTS.

SOUTH AUSTRALIA.

Carr, Dr. H., to be Health Officer for the District of Pirie.
Good, Dr., to be Health Officer for the District of Prospect.
Hennessy, T. J., L.R.S., K.Q.C., (Irel.) to be Health Officer for Hawker.

Kerr, D., M.B., Ch.M., to be Hon. Medical Officer, Port Pirie Hospital, *vice* Dr. A. N. Wilkinson, resigned.

Macquarie, C. N., L.R.C.P. & S., to be Public Vaccinator for Murray Bridge.

Wilson, E. C., to be Health Officer for Wallaroo, *vice* Dr. W. H. Harbison, on leave.

QUEENSLAND.

Binney, Constance C., to be Resident Medical Officer to the Brisbane Hospital.

Winterbotham, L. P., M.B., B.S., to be Resident Medical Officer to the Brisbane General Hospital, *vice* Dr. Avery, resigned.

NEW SOUTH WALES.

Howley, B. T., to be Medical Officer to the Wentworth Hospital.

VICTORIA.

The following persons to be Officers of Health for the districts set opposite their names respectively, viz.:—

Breton, Dr., West Riding of the Hampden Shire.

Boughton, William Blockley, Shire of Flinders and Kangerong, West Riding.

Fankhauser, Herbert William, M.B., Shire of Creswick, *vice* David William Hartnell Mackie, M.B., resigned.

Cardell-Oliver, Arthur, L.R.C.P., Shire of Evon, *vice* Charles Frederick Lethbridge, M.R.C.S., resigned.

Stacpoole, Adam Richard, L.R.C.P., to be Acting Officer of Health *vice* Douglas Dunbar Jamieson, Shire of Wannon, Nareen and Coleraine Ridings.

Moore, George, M.D., to be President of the Medical Board of Victoria, *vice* Andrew Shields, M.D., resigned.

Mollison, Crawford Henry, M.B., to be a member of the Medical Board of Victoria, *vice* Andrew Shields, M.D., resigned.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz.:—

Boughton, William B., L.R.C.S., for South-Eastern District, *vice* John Hugh Mackenzie, F.R.C.S., resigned.

Keogh, Arthur G., M.B., for South-Eastern District, *vice* Samuel B. Helwig, M.D., who has left the district.

McKelvey, J. L., to be Medical Superintendent to the Melbourne Hospital for six months.

The following appointments have been made to the Alfred Hospital:—

Sherwin, A., M.B., fourth Resident Medical Officer.

Major, J. P., M.D., Hon. Assistant Physician for out-patients.

MacLure, A. F., and Paton, G. A., to fill vacancies on the resident staff.

Slooman, L. O., to be Resident Surgeon at the Creswick Hospital.

The following appointments have been made to the Women's Hospital, Melbourne:—

Blaubaum, Dr., to be Senior Resident Surgeon of the Midwifery Department.

Henderson, Dr. Mary, to be Junior Resident Surgeon of the Midwifery Department.

Wilkinson, Dr., to be Resident Surgeon of the Infirmary Department, *vice* Dr. Pinnock, resigned.

WEST AUSTRALIA.

Barker, Gilbert, M.B., B.S., to be Junior Resident Medical Officer at the Perth Public Hospital.

Clement, Dixie, to be Acting District Medical Officer and Public Vaccinator, at Pingelly.

Dowling, F. J., to be Acting District Medical Officer and Acting Public Vaccinator, at Wagin, during the absence on leave of Dr. Nutting.

Deakin, J. E. A., M.B., Ch.M., (Syd.), to be Assistant Physician on the Honorary Medical Staff at the Perth Public Hospital.

Gibson, Arthur Horace, M.B., B.S., to be Resident House Surgeon at the Fremantle Public Hospital, *vice* Dr. Andrew Stewart Young, resigned.

Glyn, Dr., to be Officer of Health for the Wiluna Local Board of Health, *vice* Dr. Dawson, resigned.

Saunders, John Harry, to be acting Resident Magistrate, at Murray, and Acting Magistrate of the Pinjarra and Jarrahdale Local Courts, also Acting District Medical Officer and Public Vaccinator at Pinjarra, during the absence on leave of Dr. Charles Lovegrove.

Shields, C., to be Officer of Health for Mulline Local Board of Health, *vice* Dr. T. P. McKell, resigned.

Webster, Alfred (temporarily), to be District Medical Officer and Public Vaccinator at Meckering.

NEW ZEALAND.

Patrick, William Hugh Clifford, M.B., Ch.B., (N.Z.) 1907, to be a Public Vaccinator for the District of Manuhierika.

Hillwright, Matthew Leslie Guy, M.R.C.S., (Eng.) to be Captain, New Zealand Medical Corps.

Mason, Surgeon-Captain James Malcolm, M.D., to be Chief Sanitary Officer, with rank of Lieutenant-Colonel, New Zealand Medical Corps.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:—

VICTORIA.

Pern, Norman, L.R.C.P. and M.R.C.S., 1900.

Merrin, Patrick, L. & L. Mid. R.C.S. (Irel.), L.A.H. (Dub.), 1893; L.R.C.P. (Irel.), 1894.

Levis, James Miles Sterling, L. & L. Mid. R.C.P. (Irel.), 1901; L. 1901, F. 1904, R.C.S. (Irel.), D.P.H., R.C.F.S. (Irel.), 1904.

Steel, Donald, M.B. & Ch.B. (Glas.), 1901.

Oliver, Arthur Cardell, L.S.A. (Lond.), 1901, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1908.

SOUTH AUSTRALIA.

Pern, Norman, L.R.C.P. and M.R.C.S. (Lond.), 1900.

Lucas, Leonard, L.R.C.P., L.R.C.S. (Irel.), 1906

Hennessy, Thomas James, L.R.C.S., K.Q.C. (Irel.), 1882.

QUEENSLAND.

Parry, Evan William, M.B.C.S. (Eng.), 1904, L.R.C.P. (Lond.), 1904.

Poggioli, Vitaliano, M.D. (Bologne), 1876.

Winterbotham, Lindsay Page, M.B., B.S., 1908 (Melb.).

Additional Qualifications.

Beccombe, Samuel Hubert, L.M.S., S.A. (Lond.), 1908.

TASMANIA.

Ponsford, Frank William Augustus, M.B. (Melb.), 1908, Ch.B. (Melb.), 1908.

NEW SOUTH WALES.

Rabagliati, Andrea Francis Homyman, M.B., B.S. (Edin.), 1902, M.D. (Edin.), 1907.

BIRTHS, MARRIAGES AND DEATHS

BIRTHS.

BLIGH.—August 18th, 1908, at Withycombe, North Sydney, the wife of Erasmus Bligh, M.B. Ch.M.—a daughter.

BLUE.—August 7th, at 289 Cleveland-street, Redfern, Sydney, the wife of Dr. A. I. Blue—a daughter.

BUSBY.—August 17th, at Fernlea, Bathurst, N.S.W., the wife of Hugh Busby, M.B., Ch.M.—a daughter.

DONOVAN.—August 18th, 1908, at Ballina, N.S.W., the wife of H. C. E. Donovan, M.B.—a son.

GRINDROD (née Elees Skoglund)—July 2nd, 1908, at Rockhampton, Queensland, to Dr. and Mrs. Grindrod—a son.

SYDNEY JONES.—August 2nd, at Glebe Point, Sydney, the wife of Dr. P. Sydney Jones—a son.

LETCHER.—July 18th, at Cobar, N.S.W., the wife of Dr. H. R. Letcher—a daughter.

MACKEDDIE.—August 16th, at Professional-chambers, Collins-street, Melbourne, the wife of Dr. J. F. Mackeddie—a son.

MAGAREY.—September 3rd, the wife of Frank Magarey, M.D., Adelaide—a son.

SHARP.—July 20th, at Candelo, N.S.W., the wife of Dr. W. A. Ramsay Sharp—a son.

WASSELL.—May 28th, at Thursday Island, Queensland, the wife of J. Leatham Wassell, M.B., Ch.M.—a son.

MARRIAGES.

CARNEGIE—COMFORT.—On the 15th August, at Richmond, by the Rev. W. Hunt, William Dalrymple Carnegie, M.D., of Richmond, to Elizabeth J. Comfort, only daughter of George Taylor, Durham-street, Richmond, Victoria.

DRUMMOND—SLATTERY.—August 20th, at St. Stephen's Church, Brisbane, James Drummond, M.D., of Pomona, Queensland, to Mary (Nurse), eldest daughter of Mrs. A. E. Slattery, Gipps-street, Richmond.

PALMER—WHEELER.—August 12th, at Petersham, Sydney, Henry Wilfred Palmer, M.B., Ch.M., second son of E. G. W. Palmer, of "Roseneath," Boulevard, Petersham, to Ethel May, eldest daughter of John Wheeler, of "Brentie," Croydon-street, Petersham.

SHELLSHEAR—ROBERTSON.—July 23rd, 1908, at the Catholic Apostolic Church, Carlton, Melbourne, Joseph Loxden Shellshear, M.B., Ch.M., third son of Walter Shellshear, M.I.C.E., to Hildred, daughter of Mrs. Andrew Robertson, Struan, Liason Grove, Hawthorn, Melbourne.

FIASCHI—FAULL.—At St. Philip's Church, Sydney, Dr. Carlo F. Fiaschi, of Lithgow, to Alice Bertha, youngest daughter of the late Charles and Laura Ross.

DEATHS.

HICKS.—On the 6th September, Marie, the dearly beloved wife of Dr. J. H. C. Hicks, of Beec, and daughter of John Evans, of Ballarat, Victoria.

HOPE.—August 13th, at Melbourne, Arthur Bobart, fourth son of the late R. C. Hope, M.D., M.L.C., Victoria, aged 48.

DOWLING.—September 6th, at Wagin, Western Australia, Francis Joseph Dowling, M.B. (Lond.), late of Richmond.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Mr. G. T. Taylor, Hobart; Mr. Bruck, Sydney; The Bureau of Statistics, Sydney; Dr. L. Redmond, Charters Towers, Q.; The Australian Drug Co., Sydney; T. D. Ritchie, Esq., Secretary New Zealand Department of Agriculture, Wellington, N.Z.; Dr. B. B. Ham, Brisbane; Mr. E. Merck, Darmstadt, Germany; Mr. G. Arnold, Sydney; Messrs. Allen & Hanburys Ltd., Sydney; Dr. Tidswell, Sydney; Dr. H. C. Hinder, Sydney; Dr. L. Herschel Harris, Sydney; Dr. W. G. Armstrong, Sydney; Dr.

R. Scott Skirving, Sydney; Dr. F. Henriksen, Toowoomba, Q.; Dr. H. Russell Nolan, Sydney; Messrs. Muir & Neil, Sydney; Dr. D. M. Officer, Melbourne; Dr. Wm. Chisholm, Sydney; Dr. H. S. Newland, Adelaide; Dr. T. G. Wilson, Adelaide; Dr. Gault, Adelaide; Dr. A. A. Hamilton, Adelaide; Dr. F. S. Home, Semaphore, S.A.; Dr. A. B. Brockway, Brisbane; Messrs. Fredk. Stearns & Co., Detroit, U.S.A.; The Registrar, Royal College of Physicians, London; Dr. E. S. Stokes, Sydney; Department of Public Health, Auckland, N.Z.; Dr. Tucker Wise, South Devon, England; the Denver Chemical Manufacturing Co., Sydney; Mr. W. Ramsay, Sydney; Dr. E. W. Kerr Scott, Brisbane; Dr. G. M. Barron, Sydney University; Dr. A. E. Martin, Perth, W.A.; Dr. A. Palmer, Sydney; Dr. Henry Laurie, Melbourne; Dr. O. Latham, Rydalmere, N.S.W.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 325.

SYDNEY, OCTOBER 20TH, 1908.

VOL. XXVII., No. 10.

THE MENTAL FACTOR IN MEDICAL PRACTICE.

The Address in Medicine delivered before the Australasian Medical Congress, Melbourne, October, 1908.

By George E. Rennie, B.A. (Syd.), M.D., F.R.C.P. (Lond.), Sydney, President of the Section of Medicine.

My first duty is to express to you my hearty thanks and appreciation of the great honour you have conferred upon me in inviting me to preside over the deliberations of the Section of Medicine during this Congress.

In thinking over a subject upon which to address you I at once put aside any idea of giving you a review of the work accomplished in the field of medicine during the last few years, since it would be impossible to do justice to such a wide subject, and I came to the conclusion that the President of a Section at the Congress should utilise his opportunity to put forth some work, if possible, of original research, or, at any rate, some record or review of the special line of work in which he may have been occupied. As we advance in years, in knowledge, and in experience, we come to see things in different lights; and with a broader view of the landscape we can take our bearings with greater accuracy and pursue our course with greater confidence.

Consequently I have decided to bring before you a line of thought and work which has occupied my attention more especially during the last few years, and which has been forced upon me by the special line of practice in which I have been engaged. Briefly I would put my thesis before you in this way. I believe that, while in a general sort of way most practitioners of medicine recognise the influence of the mind on the body, comparatively few of us have thought out the meaning of the expression or its full significance in medical practice, or realise the necessity of taking this factor fully into consideration in our therapeutic measures.

I consider the present an opportune time for drawing attention more especially to this subject, since (as a result probably of increasing strain on the nervous system imposed by the economic and social conditions of modern times) there seems to have occurred a marked increase in what are called func-

tional disorders of the nervous system. These are met with in all classes of society and under all conditions, and they come under the observation not merely of the neurologist and alienist, but almost always in the first instance of the general practitioner.

A recent writer in an American journal has said:—"It is a well-known fact that in no department of medicine is the average medical man so poorly trained as in psychopathology. In medical schools, even to-day, no adequate training is given in psychology. Little wonder is it, therefore, that the treatment of functional diseases is unsatisfactory. But physicians should see the reason, and should to a degree feel that they are not wholly without responsibility that patients of this class fall victims to all kinds of quackeries and cults. If the medical profession knew of a reliable treatment for functional disorders, Eddyism, for instance, could never have flourished as it has. Because of the great increase in this class of diseases and the unsatisfactory condition of psychotherapy a widespread popular interest has been shown of late in this problem, and cults of various kinds, such as faith-healing, Eddyism, and Dowieism have made tremendous strides."

The expression "the influence of the mind over the body," while understood perhaps in a general way by those who have given enough thought to the subject, yet involves some very difficult questions of psychology and physiology. We are at once brought face to face with the question, What is mind? Here we tread upon ground which has been the site of many a battle between philosophers and psychologists of all ages; yet it is a question which we must answer in some way or another, if we would arrive at a clear understanding of what we mean by "mind over body." The very expression seems to imply that the mind is something distinct from the body; that it is a distinct entity outside the physical structure, which exerts some influence over the brain itself, and through it upon all the organs of the body.

But such a view of mind does not commend itself to many psychologists. We find Professor Bain speaking on this point as follows:—"But of mind apart from body

we have no direct experience, and absolutely no knowledge. . . . In the second place, we have every reason for believing that there is, in company with all our mental processes, *an unbroken material succession*. From the ingress of a sensation to the outgoing responses in action, the mental succession is not for an instant dis severed from a physical succession. It would be incompatible with everything we know of cerebral action to suppose that the physical chain ends abruptly in a physical void, occupied by an immaterial substance; which immaterial substance, after working alone, imparts its results to the other edge of the physical break, and determines the active response—two shores of the material with an intervening ocean of the immaterial."

And Dr. McDougall, a well-known physiological psychologist, says:—"This recently acquired knowledge of the nervous system forbids us to accept the view that was for a long time generally entertained—the view that the impulses of the sensory nerves came to an end at some spot or spots in the brain, where they stimulate the soul to produce sensations, while the impulses of the motor nerves are initiated in their central ends in the brain by the soul playing upon them as a musician plays upon the keys of a piano. We are compelled to believe rather that the various processes of the brain are of the type of the reflex processes of the spinal cord, and consist in the transmission of physical impulses through channels of great complexity from the sensory to, or towards, the motor nerves, and to believe that all psychical processes are accompanied by nervous processes of this character. The conclusion that all psychical process or consciousness is accompanied by neural process is now generally accepted, and may be regarded as well founded."

But there is no necessity to assume, as the only alternative to a purely materialistic conception of mind, the existence of any immaterial break between the terminations of the sensory fibres and the commencement of the motor fibres in the brain. We do know that every sensory impression made upon the brain does not necessarily result in a motor response; that the sensory stimulus may remain, as it were, impressed upon the brain and stored up as a sensory image. We know, however, that action may be the result of what used to be called "unconscious cerebration"; that many acts can be performed without careful deliberation or adjust-

ment, or any conscious direction on the part of the individual. We know, too, that these actions, which appear to be of the nature of reflex actions, may be inhibited (in whatever inhibition may consist); that sensory impulses may be prevented from producing corresponding movements. Moreover, when sensory stimuli reach the consciousness, there may be an act of deliberation as to whether or not these sensory stimuli are to be allowed to play any part in the conduct of the individual. In other words, the mental attributes of attention, judgment, and free will, may all come into play. I cannot conceive of such mental processes being merely the "transmission of physical impressions through channels of great complexity from the sensory to, or towards the motor nerves," without assuming that such transmission is directed or controlled in some mysterious way by the action of some immaterial power, which constitutes the "mind."

It is true that we have no knowledge of such "mind" apart from the nervous system, or of the existence of "mind" apart from body. But while we admit that all psychical processes are accompanied by neural processes, this only means, after all, that every mental state is manifested by some physical or chemical change in the nervous system. It does not necessarily mean that mental processes and neural processes are one and the same thing. If we adopt the purely materialistic view, then the expression "the influence of the mind on the body" seems at once meaningless. If all mental processes or mental states are the result of the molecular activity of nerve tissue, then it is clear that the "mind" must be materially influenced by alterations in bodily states; but the mental state which does not exist at all, apart from a neural process, can have no influence in determining physical states of the body.

Leaving aside, however, the theories of the psychologist, I propose to direct your attention to certain facts which, in my opinion, illustrate the interaction of body and mind. I propose to show that not only is the mind or mental state influenced by the bodily state, but, conversely, the mental state does influence the bodily state.

First, as to the influence of the body on the mind, it is scarcely necessary for me to remind you of the fact that the state of mind or consciousness may be very much altered by alterations in the physical condition of the

nervous system. When we have a progressive degeneration of nerve cells, nerve fibres and blood vessels, we get a progressive decay in the mental faculties; we see this well exemplified in general paralysis of the insane. Or, again, when as a result of neoplasm, or of cerebral hæmorrhage, or thrombosis, we have localised destruction of certain parts of the brain, we may have disorders of the special senses or of speech or of motion, accompanied by more or less enfeeblement of the mental powers according to the site of the disease and the amount of involvement of the associational areas. We assume that the mental changes depend upon the impaired vitality or destruction of the cortical nerve cells and fibres.

But the nervous system may be intact; there may be no macroscopic lesion present; and yet, as the result of the action of endogenous poisons, such as the toxins of fevers and infective diseases—or as a result of some disturbance in the metabolism of the body, such as we see in myxœdema—or in consequence of the administration of certain drugs, as alcohol, chloroform, ether, opium, and the like—we get a variety of mental states produced, conditions of depression, exaltation, delirium, delusions and hallucinations. But we are as ignorant of the exact way in which these various physical agents acting on the nervous system produce variations in the psychical state as we are of the method of production of nascent thought from brain cells.

We know experimentally that the application of certain poisons to nerve cells and nerve fibres causes definite changes in the power of the conduction of nerve impulses and in their electrical condition, which may be only temporary and recoverable if the toxic agent be soon removed, or, if the action of the latter be more prolonged, may continue and even pass on to actual death of these structures. We must assume that in the body these toxic agents produce the same morbid conditions of nerve cells and fibres, and we attribute the changes in the mental state to the physical effects produced upon the cortical cells and fibres. It is assumed that, since the altered psychical states always ensue when these physical agents operate on the brain tissues, they must be related as cause and effect; and no doubt it is generally true that, when one series of events invariably follows upon another series of events, the two series stand to one

another in the relation of cause and effect. But while we admit that all psychical processes are accompanied by neural processes, the nervous system being the medium or instrument for the manifestation of mental states, it is obvious that, if that instrument be impaired, either as the result of organic degeneration or of temporary poisoning, the manifestation of the mental state must be defective—in other words, we get a distorted view in an imperfect mirror.

But we have also to bear in mind that our conscious mental states are determined by impressions of sensations of various kinds received through the physical agency of the nervous system. We have no knowledge of the things around us save by the activity of our receptive sensory organs. If, then, as a result of temporary or permanent disease, the afferent sensory paths and the efferent motor paths are functionally impaired, we get erroneous impressions from without, and the efferent response is accordingly defective. The delirium, delusions, hallucinations, etc., are really the outward manifestations of a disordered nervous system—the harmony of the whole is lost—the nervous processes are over-active in one part of the brain, defective in another; one part is stimulated, another part is paralysed or functionless; and so, as a result of an imperfectly balanced nervous system, we get distorted vision and uncontrolled speech.

No better illustration of this fact can be given than that of a man who is suffering from a condition of mental depression, associated with a so-called liver attack. There is no doubt that there is circulating through his blood some toxin or toxins derived from his stomach or intestine. These physical agents circulating through the brain must influence the condition of functional activity and nutrition of the nerve cells and fibres of the cortex. Corresponding to this physical condition the mental state of the patient is one of depression; everything irritates him; he sees trouble on every side; he takes a distorted view of his business; his power of attention is impaired, and his judgments are erroneous. In other words, his mental state is one of perversion, because his impressions from the outer world are received through imperfect and disordered channels; his premisses are false, and he draws wrong conclusions which he is unable to correct; his speech and actions often betray these erroneous judgments. We know how, in such

a case, a dose of calomel will make all the difference; in a few hours the poison may be removed from his system, once again his vision is cleared, and his mental state is restored to normal.

But when we come to consider the other side of the question, namely, the influence of the mind over the body, we are met with some difficulties. The materialist who believes all mental processes to be the direct result of molecular changes in the nervous system necessarily cannot admit that mental processes exercise any influence on bodily states. The psycho-physical parallelist does not believe at all in the interaction of mind and brain; in his opinion the mental process and the neural process go on side by side, and the one cannot directly influence the other. But a consideration of some facts will, I think, show that, no matter in what particular way the mental state may act upon the bodily state, some such interaction does take place and manifests itself in definite alterations in disease and death.

We have, of course, here, as elsewhere, to be on our guard against the fallacy of the *post hoc propter hoc* argument. I will give you some illustrations. A sudden and severe mental shock may so alter the body metabolism that the patient may develop diabetes. This is illustrated by a case which came under my care some years ago. A boy who was passionately attached to his mother suddenly discovered that she was suffering from cancer. While she was undergoing operative treatment for this, the boy was, unknown to anyone, reading up all he could find about this disease, and came to the conclusion that she would be sure to die before long. This discovery seems to have made a most profound effect upon his mind; from being a bright and strong, healthy youth, he began to lose weight, to become quiet and reserved, and to pass an increasing amount of urine. He began to notice his own symptoms; he read about them, and diagnosed his own case as one of diabetes. He, however, kept this to himself, as he was unwilling that his mother should be further worried. Eventually his symptoms became most pronounced, and in spite of everything that could be done his disease persisted. He watched the downward path of his mother, and followed her to the grave just a fortnight later. From observation and investigation of other cases of this disease I feel convinced that a state of mental

strain and tension is one factor in its etiology, but how exactly this result is brought about it is impossible to say.

Take, again, the disease exophthalmic goitre. This is a disease which we know to ensue not infrequently upon severe emotional shock or excitement. Some writers have drawn attention to the peculiar grouping of symptoms as being a permanent condition of the body simulating that produced by the emotion of fear; the symptoms and appearance of the patient are those presented by a hunted animal. Quite recently I have had under observation a young girl of 17 years, previously of a nervous disposition, who as a result of sudden shock, associated with some emotional disturbance, presented the subjective symptoms of this disease—the sense of constriction round the throat, the throbbing in the chest and oppression of breathing, the feeling of tightness about the eyes, etc.—but who did not present any of the objective signs of exophthalmic goitre. We are familiar, too, with the fact that prolonged anxiety and grief appear to determine the development of Bright's disease and of insidious disease of the heart, so that the expression "a broken heart" as a result of grief may be literally true. I think there can be no doubt that these physical conditions may be induced directly not as a result of any physical cause acting on the body, but as a result of the action upon the nervous system of some change in the psychical state which is termed an "emotion." I am well aware of the views of Professor James and others on the emotions and their physical basis, but it would be out of place here to enter upon a discussion of these views. Personally (and here I am in good company), I cannot help taking what seems to me the more commonsense view, that the psychical state is first in time and the organic visceral sensations are second in time.

But this matter has been, and is still being, worked out in an experimental way by the modern school of experimental psychologists. I would refer you to the pioneer work in this line of Tarchanoff, Sticker and Sommer, and the more recent and exhaustive work of Peterson and Jung, who by means of electrical apparatus have devised a means of showing by fluctuations of a galvanometer needle an indication of the physical changes produced in the body as a result of expectation, imagined or real emotion, or

sudden verbal stimuli. These results clearly prove that consequent upon purely psychical stimuli we get actual physical changes in the body, which can be estimated and compared in different individuals.

There is still another aspect of this interaction of mind on body. You are all aware that at any given moment our field of consciousness is more or less limited, in proportion to the degree of attention directed to any particular subject; and, as it were, surrounding that central bright spot of consciousness we have a halo of sub-conscious sensations and impressions, and at any given time at our will we can bring any part of this sub-conscious area into the active field of consciousness. Normally we ignore many of the nerve impulses and stimuli which are constantly streaming in from the periphery to the central nervous system; we are unconscious of them, yet they are actively at work in effecting muscular co-ordination, in giving information of the state of muscles, bones, joints, skin, etc., which information is being used outside the sphere of our consciousness. For example, as we walk along absorbed in thought or conversing with a friend, these peripheral impressions are actively engaged in enabling us to maintain the erect attitude and to walk steadily; yet we are unconscious of them until some unusual stimulus, in the shape of pain or a tired feeling, directs our attention to them.

But apart from any local peripheral stimulation, if we concentrate our attention fixedly upon any particular part or organ of the body, we become conscious of some sensation in that part. This particular area of the body is brought within the field of consciousness, and we become conscious of the sensory stimuli which are constantly arising from it. If we fix our attention sufficiently long on it, we may experience a degree of pain or discomfort. This is a fact which anyone can prove for himself. The exact explanation which I suggest for it may not be acceptable to some, but I do not insist upon the explanation; I only want to use this fact. Now if any pathological condition be present in any part of the body which causes one to direct his attention to that part, the very concentration of the attention determines an aggravation of the pain or discomfort; and if we are able to divert our attention from the seat of the lesion, then the sensation of pain or discomfort is correspondingly diminished. The concentra-

tion of the attention upon any part of the body, especially if the state of mental concentration be accompanied by some emotional distress, or fear, or anxiety, may develop a state of limited consciousness which amounts to an obsession. The limitation of the field of consciousness may determine a condition of constant pain or of paralysis, associated with a change in the disposition and character of the patient, so that he becomes absolutely self-centred and selfish.

I will give you some illustrations. A young man of 24 years of age, a clerk by occupation and entirely dependent upon his own exertions for his living, was sent to me by a medical man complaining of "neuritis of the right arm." He had previously been a strong, healthy and athletic man, though of a somewhat nervous disposition, and had never suffered from any illness. Some 18 months before I saw him he had been exposed to cold, and got a slight amount of muscular rheumatism in the right shoulder. This for a time interfered with his athletic exercises, though it did not prevent him from doing his work. As the pain did not go away all at once he began to think more about it, more especially as he had never had any illness before. The more his attention was directed to his arm, the worse the pain became, and it gradually extended down his arm to the forearm and hand. He then began to fear that this pain meant something serious, that his arm would become paralysed, and so he would not be able to earn his living. This state of emotional disturbance combined with the concentration of his attention upon the limb aggravated his condition; in spite of treatment he got worse, ceased to take any exercise, and finally left off his work, because of the pain in the arm and the feeling of inability to use it. His emotional state had been further aggravated by his being told that he was suffering from "neuritis," and this had preyed on his mind. A very careful examination of the arm showed that he had no real loss of power at any joint or in any muscle—there was no muscular wasting, and no disturbance of sensation. In other words, there was an entire absence of any symptom of neuritis, and it was obvious that the condition was one of purely functional disturbance due to his mental state. The fact that he was cured in two days proved the accuracy of this diagnosis.

Take another case, slightly different. I was asked to see a woman, 64 years of age, who, I was informed, was suffering from

rheumatoid arthritis, and had recently had some fainting attacks. She had always been previously a healthy active woman, living in the country, and always interested in her home and family. Some eighteen months before I saw her she had had a slight attack of rheumatism in one hand, but this had passed off in a few days. Twelve months later she sprained her ankle; this, of course, necessitated her lying up for a time, and interfered with her active life. She then again began to have rheumatic pains in her joints, this time rather more severe, and, as the pains persisted in spite of treatment, she was advised to take a trip to the seaside. While there she consulted a medical man, who told her her only hope of cure was to have high-frequency electricity. Acting on this advice she underwent a course of treatment of this nature for a fortnight, got no better, and returned home in a very depressed state of mind, being convinced from the failure of the electricity to cure her that she was incurable, and that her active life must come to an end. She was advised not to use her hands at all, and so went to bed, and apparently grew weaker and more helpless; did nothing for herself, and was waited on most patiently by a devoted but rather unwise nurse, and a family of devoted daughters. She then began to have what were called fainting attacks; but her medical attendant never saw one of the attacks, and, even when he was hastily summoned to see her in one, he always found the heart steady and regular, and the pulse good.

When I saw her with her medical attendant she was lying in bed propped up, with rather an anxious expression. A very careful examination revealed a perfectly normal heart and good arteries, with a pulse of good volume, regular and steady at 76 to 80 per minute. An examination of all her joints showed practically no limitation of movements, and no swelling, and all movements at all joints were possible, though performed with some sluggishness. There were absolutely no signs at that time of any joint disease, but her muscles were flabby and weak. It was said that she could neither stand or walk or use her hands. She was inclined to be emotional. An additional factor at work, besides her anxiety about herself, was this: her favourite son was to be married in about a month's time in the neighbouring town, and she was much disappointed because she felt sure she would not be able to attend the wedding.

Here we have the picture of a woman previously of active habits, who, as a result of a sprained ankle, is laid aside and, owing to the disturbance in her body metabolism in consequence of her enforced idleness, gets a manifestation of rheumatism in some of her joints. This seems to have depressed her, and I suppose she pictured herself to herself as an old crippled woman, who would henceforth be not fit for much. Then this state of fear and anxiety about her condition was much intensified by the unwise advice given to her, that a certain line of treatment was her only hope; and when this failed to relieve her (as was to be expected, considering the real cause of her suffering), she became further depressed and quite hopeless about herself. The sympathy of her attached family aggravated her emotional state, and so she gradually passed into the condition I have described. Yet, as I have said, a careful examination failed to reveal any physical condition which would account for her state. The fact was that she had passed from a life of unselfish activity to one of absolute self-centredness and reliance upon others. So far as her physical condition was concerned there was no reason why she should not be up and about. Being fully persuaded of this in my own mind, I insisted upon her rising from her bed and walking across the room, and sitting up in a chair, assuring her that her fears about herself were groundless.

The subsequent history of the case quite bears out the correctness of this opinion. A competent masseuse nurse was put in charge, and the case fully explained to her. Now this patient will do for the nurse almost anything she is asked; she uses her hands for working or sewing, and feeds herself quite naturally; she walks about, and has had no more fainting attacks. So long as the nurse is there she is able to do these things; but when she is left to her daughters' care she falls back again and complains of her weakness and inability to do things. Her pains are very largely due to her state of mental concentration, as there are no further signs of joint disease. This is a most striking case of the effect of concentration of attention upon a system of the body the seat of slight initial pain, combined with the emotional states of fear, anxiety and disappointment.

The following is another case, in which the site of the morbid sensation was the stomach: A clerk, a married man, aged 34 years, came to me complaining of "indigestion and ulcera-

tion of the stomach." He had been suffering on and off for the last six or seven years, and had been under medical treatment practically all the time, but had been getting worse for the last three years. He told me that the pains in the stomach were very severe at times, but were very variable. One fact, however, of importance was that the pain was always relieved by food (a sign, you will say, of duodenal ulcer). This was an invariable rule: the pain was never made worse by food, and he had never vomited. On examination I found him to be rather anæmic and haggard looking; he had lost weight considerably during the past two years. Physical examination failed to reveal any signs of organic disease anywhere. There was absolutely no tenderness over the stomach or duodenum or liver.

It was quite obvious from his manner, and from the occasional remarks he made, that he was in a very depressed state of mind about himself, and feared his condition was incurable—that he would have to go on suffering, gradually getting worse, till his ailment should finally carry him off. On the day (Tuesday) he visited me he said the pain was severe; the previous day (Monday) he had not had it except in the morning; yet he had had the same kind of food as on the day before, *i.e.*, on Sunday. On the Sunday he had had the pain several times during the day. It was clear that there was some condition present which determined the absence of the pain on the Monday. And it was this: on that day a favourite relative had come down from the country, and my patient and his uncle went off to a race meeting, and were much interested in the sport. The patient ate his dinner and experienced no discomfort either before or after it. On returning home in the evening he had a good tea, and spent the evening chatting over old times with his uncle. He had had no pain all day. Next day he had to return to work—the old conditions were resumed, and at once his mind reverted to his condition and his prospects, and his pain returned.

Now clearly the man's state of mind was this:—"I have an ulcer in my stomach" (his condition had previously been diagnosed as one of ulcer of the stomach); "I am afraid to eat much for fear of making it worse and for fear it will bring on the pain again. This pain is so severe and constant, and I have been so long under doctors without

getting better that the disease must be incurable. I have a wife and four children; I shall soon be unable to work, and they will be unprovided for." He practically admitted that some reasoning of this kind had been passing through his mind. I pointed out to him that his pain was largely the result of his mental anxiety and the concentration of his mind upon his stomach; that he had no reason to have any such morbid fears as he had expressed, and that, with improved nutrition and a diversion of his mind from his stomach, he would get quite well. He left my room in a very different frame of mind, and returned a few days later to say that he was eating now ordinary food, and had practically lost all his pain. I asked him to come to me again whenever he had any return of his pain; as I have not seen him since, I conclude that he remains well.

Another case was that of a young married woman of 30 years of age, who came to me complaining of rectal pain for the past nine months. She came of a nervous stock. She had had some perineal tear, and slight prolapse of the rectum since the last confinement, some 13 months previously. When the child was a few weeks old she was subject to prolonged anxiety owing to the child's delicate state, and lost her rest at night. On one occasion she was alone in the house, and fancied that the child was dying. She got then sudden pain in the rectum. Subsequently an operation was performed for the ruptured perineum and the prolapse, the idea being that the pain was due to this morbid condition. The operation was completely successful from the surgical point of view, but the pain persisted as before. Further anxiety over another of her children tended still further to depress her nervous system. The constancy of the pain, combined with the variability in its exact position, and its burning character, along with an absence of any local condition or disease which might cause it, at once suggested the mental origin, and she was soon cured of her complaint.

Another very striking case was that of a young woman of about 25 years of age, who came to me complaining of some of the subjective symptoms of heart disease. Her history was that she had always been healthy; there was no history of preceding rheumatism, and she had never experienced any symptoms referable to her heart until a few weeks before I saw her. One afternoon she had been playing tennis, a thing not

unusual for her to do, but afterwards had had some sensation of pain or discomfort in her chest, which induced her to consult a doctor a day or two later. On examination the doctor told her that she had heart disease, and from that time she began to have symptoms. Now, of course, one might have said that on this occasion she had overexerted herself, and had produced some temporary dilatation or heart strain. But when I saw her I found that she had most typical signs of mitral stenosis, with good compensation, and absolutely no sign of irregularity or disordered action. The fact was that her attention had been directed to her heart, and she began to have these subjective symptoms, of which she had previously had no experience, although the character of her heart lesion showed clearly that it must have been there for at least many years. Here, of course, the concentration of the attention, along with the state of anxiety almost always associated with a fear of heart disease, was sufficient to determine her condition.

In all of these cases you will notice that the seat of the discomfort or pain which determined the condition of mental depression was peripheral. Not infrequently, however, we find that the brain itself is the site of the obsession, and this concentration of the attention upon the nervous system aggravates very materially the condition of mental depression. The following case will illustrate this. A single man of about 38 years of age had been engaged in clerical work for many years. He had always been of a bright disposition, with no excesses of any kind, but had always worked very intently. He had had a fair amount of work, and had had to do two men's work for some time previous to his breakdown. About 18 months ago, after working late at his office, he returned home about ten o'clock, and went to bed. At about 2 a.m. he woke with what he describes as a terrible headache, which so alarmed him that he at once got up and went off to see a doctor. In the course of the same day he went to his office, but could do no work, and he has done none since.

When I saw him first, now some months ago, he was looking physically well, and a very careful examination failed to reveal the existence of disease in any organ of his body, while his nervous system to objective examination appeared to be

intact. Similar examinations at later periods have always revealed the same condition. But he complained himself of a certain amount of physical weakness, especially on exertion; more especially he complained of a feeling of numbness or of chaos, as he described it, in his brain. The effort of talking for any length of time, or the effort of writing a letter, always ended in a feeling of chaos in his brain, which made him feel that death would be preferable to any further existence in that state. He could not read anything but the lightest literature. His memory was unimpaired, and his mental power was, I believe, also unimpaired; but the attempt to carry on a conversation or to write an important letter produced this feeling in his head, which was so distressing to him that he would do nothing at all which involved any effort of thought. In consequence of his condition he left home, and has no desire to return to his friends, as he prefers a life of quiet and rest away from talk and excitement of any kind. He has been making a slow but a steady improvement.

Now I consider that this patient is suffering really from an obsession of his nervous system, which prevents him from seeing anything else; in other words, he has become absolutely self-centred—the brain being the centre of his field of consciousness. Here we have a man who was previously bright, active and healthy, though always taking a great deal out of himself in his work. As a result of overstrain, he suddenly gets an attack of severe pain in the head, which makes a profound impression on him; he quite thinks that his brain has given way, and that he will never again be fit for his work. These ideas no doubt at first filled his mind, and every subsequent effort to use his brain being followed by the same train of head sensations, he became quite decided in his own mind that his case was hopeless, and was unable to dissociate his mind from concentration of attention upon his condition. This has served to keep him in the state in which he still remains, though it is not so pronounced. There is no indication of any disturbance of body metabolism, and the case appears to be one of obsession of brain upon the mind.

The following is another case illustrating the same point. A young woman of 20 was brought to me by her mother complaining of queer sensations in her head. She had no

headache, but complained of loss of power to take interest in anything. If she read a book she read it mechanically without being able to grasp its meaning or to remember it. She had learnt to play the piano and to sing, but had quite lost all interest in her music. She did her housework in the same mechanical uninterested way. If she went to a concert or the theatre she was unable to enter into the amusement, and was glad to be home again. Latterly she had developed a nervous dread of going out by herself, and would not walk up the street or go in the ferry steamer unless her mother was with her. These numb sensations in her head were always present. She had lost in weight slightly, and complained also of attacks of flatulence. She was evidently very nervous about herself, and admitted to me that she was afraid she was going mad. She was constantly thinking about her brain condition.

Her previous health had been good. But at the age of 15 she began to suffer from attacks of flatulence, which were accompanied by a good deal of flushing of the face; from the description given, I take it that these were really of the nature of a gastric neurosis. Her father had suffered from rheumatic fever, and had died suddenly many years ago. He was evidently what one would call a highly strung excitable man. Her mother is healthy, but a maternal uncle suffers from epilepsy. In April, 1907, she returned in good health from a six months' visit to a neighbouring State, and shortly afterwards became practically engaged to a young man whom she had known from childhood—an actual engagement was not consented to by her mother owing to the youth of her intended; the patient herself, however, quite acquiesced in this. The following winter she came out into society, and went through a fair amount of social excitement. It was soon after the close of the winter season that she began to suffer from the symptoms I have described. She was under treatment by a doctor for ten weeks, and had massage for seven weeks. She had also been taking a large amount of milk and had gained in weight at first, but lost it again, and her weight varied from time to time. She used to weigh herself frequently, and was always worried if she found that she had lost any weight. At the end of this treatment she was practically no better—in fact, in some ways she was worse, and her symptoms had become more

pronounced. Physical examination did not reveal the presence of any organic disease, or any objective evidence of disturbance of her nervous system.

I think the course of events in this case is clear. We have a girl who had always been somewhat delicate, with an unstable nervous inheritance, who became the subject of a gastric neurosis at 15 years of age, beginning to experience the emotional excitement associated with a love affair; then she has the physical and mental excitement associated with her first season in society, followed by a period of reaction, a state of physical and mental exhaustion. This naturally manifested itself in a loss of energy, accompanied by a feeling of inability to do what she had been accustomed to, and a concomitant state of anxiety from not being able to understand her condition. Then the development of queer sensations in her head, following on the state of brain weariness, induced further morbid fears, and, these fears being unexplained to her, she gradually drifted into a condition of mental depression which was steadily becoming more pronounced. The treatment she had had apparently failed to relieve her, because the cause of her sensations had not been explained to her. In other words, the mental factor in her case had not been seriously considered. In this case we see again the obsession of the brain upon the mind.

In describing these cases I have intentionally avoided discussing the diagnosis, because that is no part of my purpose at present; my only object is to show that the mental factor took a very large, if not the largest share, in determining the morbid condition.

But I wish now to direct your attention to certain forms of nerve disease which we call "functional," such as hysteria, neurasthenia, psychasthenia. In these morbid states we get a great variety of symptoms, both objective and subjective, and there is no corresponding lesion in the nervous system, central or peripheral. In hysteria we get a syndrome which includes a variety of symptoms and sensations, paralyses, spasms, contractures, anæsthesia, paræsthesia, disturbances of the special senses, etc. The very variety of the symptoms of itself is a conclusive proof that no organic change in the nervous system exists, for none could possibly exist, and life be maintained; and no one nowadays seriously considers that thi-

morbid condition is other than a peculiar alteration of consciousness, which is apparently allied to that artificially induced state of abnormal consciousness called hypnotism.

But with regard to the other diseases referred to, viz., psychasthenia and neurasthenia, the mental factor is not quite so obvious. Nevertheless it is a most important factor in the etiology of these morbid conditions. To begin with, they are often induced as a result of stress and strain on the nervous system. The business man who has been burning the candle at both ends finds his nervous energy becoming exhausted. He is no longer able to do his work with his accustomed freedom; everything becomes a burden to him, and he loses interest in things around him. You are all familiar with other types of neurasthenia; the man who is suffering from a chronic flatulent dyspepsia with atony and dilatation of the stomach; the woman who has a floating kidney and knows it, and who suffers from a variety of associated pains and aches and gastric disturbance; and lastly, the sexual neurasthenic who has read all the deceptive advertisements of the quack, and who comes to us in the depths of despair. In all these conditions we have to recognise the existence of a physical state which may be a source of toxins or poisons that disturb the general body metabolism, and so probably poison the central nervous system. In this connection we notice, of course, the large amount of phosphates and the presence of indican in the urine in cases of this nature.

But while we recognise the physical factor as a depressant of the nervous system, we must also take note of the patients' morbid mental state. It is important to recognise this fact, because in the treatment of the neurasthenic or psychasthenic, however much we may improve the physical condition of the body and restore the patient to normal physical health, he still remains a neurasthenic to a less or greater degree in proportion as the treatment has been accompanied by suggestion or not. If the mental state has been treated either intentionally by some special method, or incidentally by change of scene or environment, then the mental obsession is diminished, and the patient becomes less self-centred. The mental factor in these cases renders them all the more difficult to treat, and the most

difficult of all are the cerebral and the sexual neurasthenics. The functioning of the sexual organs is so closely associated with emotional conditions that their obsession becomes most intense and difficult to overcome. So, too, the dread of insanity in the popular mind renders the obsession of the brain on the mind of the cerebral neurasthenic a most troublesome condition to deal with.

You will recognise, then, that in a very large number of our patients we must take into consideration the mental factor, not only in cases of nervous disease, but in cases of all kinds of visceral disease. There is no doubt that many cases of hysteria and neurasthenia are on the borderland of insanity, and I cannot help thinking that there is a very close relationship psychologically between the obsessions of the neurasthenic and the systematised delusions of the paranoiac and the chronic delusional insane patient. It seems as if the free interchange of ideas, the free play of the mental processes had been interfered with, and the nerve paths for the reception of sensory impressions and the efferent path for the expression of ideas or movements had been short-circuited, so that every sensation received in the brain would pass along the short circuit and become at once an efferent impulse by direct reflex action without the integrating action of the higher centres. As we know that the prognosis is bad in the case of the chronic delusional patient or the paranoiac, if the delusions have become fixed and systematised, so I think that the prognosis for recovery is bad in the hysteric and neurasthenic unless these obsessions are taken early and treated successfully. We are disposed to regard much too lightly the functional nerve pains and symptoms presented by the so-called neurotic patient. We too often overlook the bad inheritance of the patient, the existence of chronic constitutional disease in the parents (such as cancer, tuberculosis, heart disease, etc.), and the still more important hereditary influence of insanity, epilepsy, alcoholism, and diabetes—factors of the utmost importance in determining the development in the offspring at puberty or later in life of those functional nerve diseases, which are often more mental than physical. These morbid states need to be treated in the earliest stages with the most scrupulous care and on the most scientific lines, if we would avert the disaster of the patient's becoming hopelessly incurable.

Recognising, then, the importance of the mental factor in various morbid conditions, we must next consider how we may best treat this element.

First of all, we must make a complete examination of the patient and find out, as far as that is possible, the exact condition of every organ of the body. This is necessary in order that we may be able, in a definite and confident way to speak from our own knowledge of the patient's physical condition; and the more careful and complete our examination, the more satisfied will our patients be that we can speak with the fullest confidence on their case. This of itself will tend to inspire a degree of confidence which nothing else can give; it is, moreover, essential not merely as a means of inspiring our patients with confidence in us as their medical advisers, but because it is necessary that we should treat and correct as far as possible every physical defect and functional error. More especially is this necessary in the case of those functional nerve diseases to which I have already referred. To this end I need only mention here the importance of correcting errors of refraction, the correction of nose and ear defects, the securing of oral asepsis, the correction of gastric and intestinal atony by judicious dieting and the use of intestinal antiseptics, etc. It is of course specially necessary for us to be on our guard against mistaking sensations referred to any particular part or organ of the body for symptoms of actual disease in that region.

And here I think it is necessary to utter a word of serious warning against the performance of operations for the supposed cure of functional nervous conditions, more especially on the sexual organs of either man or woman, unless there be some defect or derangement which is obviously dangerous to life or which must seriously inconvenience the patient. I am confident that many of the cases which are continually in the hands of the gynecologists for one operation after another are the victims of obsessions of their sexual organs, and the more operations they undergo the worse they become. I hope I shall not be misunderstood. I make no insinuations against the honesty or competency or skill in diagnosis of our gynecologists, and quite recognise the immense strides which have been made in this department of surgery in the relief of many conditions which in the past must have made life unbearable; but I am quite certain that

the performance of such operations as ovariectomy for the supposed cure of hysteria or hystero-epilepsy, or curetting for some forms of functional dysmenorrhœa, etc., are not only not justifiable (again I say, in the absence of recognised organic disease) but positively harmful to patients of the class I have referred to. Moreover it is important to bear in mind that the performance of operations of this nature for serious organic disease is not infrequently the cause of a severe shock to the nervous system, and may be followed by the development of serious functional nervous or mental disease.

In the second place (though not necessarily second in time or importance) we must direct our attention more especially to the mental state, and must consider carefully in each case what it is we have to do. We want to de-centre the patient from his own sensations and feelings—in other words, to enlarge his sphere of consciousness and to relegate to the sub-conscious the numerous subjective sensations and feelings of which he complains and which loom so largely in his imagination. Hence we have to utilise and strengthen his mental faculties. His power of attention, which is so often acutely active in one direction, must be diverted; his judgment must be appealed to, and his false conclusions pointed out to him; his will, which is often dormant, for he is the prey of indecision and morbid doubts and fears, must be aroused; his imagination, which is often lively for all that is unfavourable and of bad omen, must be turned in another direction. In short, all his mental faculties must be investigated, and the line of mental therapeutics must be directed in accordance with the nature of his mental state.

We must remember that the mental state of the patient is often one of increased susceptibility to suggestion; the mere questioning about a symptom will direct the attention to that particular function, and may ultimately determine the development of a symptom which has previously been absent. Then we find further that, owing to the limited field of consciousness and the existence of an obsession, the patient's judgment is erroneous, and he is unable to follow our argument; the condition of brain which I referred to just now as "short-circuiting" prevents his higher centres from diverting his train of thought from the one particular line of transit. Then the moral nature is perverted, and selfish instincts drive a man to consider his own com-

forts and his relief from suffering as the most important thing in the world, to the neglect of all other duties, domestic and otherwise. He becomes selfish, irritable, and fretful, causing endless misery in his own home, yet perhaps all unconscious that he is himself the main cause of it all.

There are practically three methods of directly treating the mental element in these morbid conditions. I will put out of court at once, as unscientific and unfair to the patient, the method of browbeating and putting off the patient by telling him that there is nothing the matter with him—that he is only imagining his pains and aches. We may rest assured that these sufferings are as real to him as if he were suffering from organic disease, and are often more severe. It is no pleasure to a patient to be sick and complaining and unable to do his work; we must recognise this fact, and act, if not express, our sympathy with him. Equally wrong is it, of course, to allow such sympathy to exert any influence in magnifying the patient's ailments in his own eyes.

The three methods of treatment are (1) Persuasion, (2) Suggestion, and (3) Hypnotism.

1. *Persuasion*.—By this I mean a careful rehearsal of all the facts in the family history and the past and present history of the patient which may have any bearing upon the causation of his disease, an endeavour to explain fully and clearly to him the reasons for his condition, and a little exposition of the influence of mental concentration in aggravating his pains and discomfort. This simple method I have found to be extremely useful and helpful to many patients; but of course it has its limitations, and can only be effectively employed in a certain class of case.

In the case of the clerk with the apparent loss of power in the right arm, whose history I related to you a few moments ago, I described to him the progress of events—the gradual evolution, from the emotional condition of fear, of the actual condition of pain and apparent loss of power in the arm. I then pointed out to him that all the signs of organic disease, such as neuritis, were entirely absent, and persuaded him that his fears and anxieties were groundless. He was convinced, and in two days was quite well. Previously he had had massage and other treatment, which not only were of no avail but had rather aggravated his trouble, be-

cause they tended to confirm to his mind the idea that he had some definite organic disease.

Then, again, to the young woman who had the dread of going mad because of the queer sensations she experienced in her head, I explained fully the progress of events, their gradual development, and the causes at work. In this case, too, prolonged treatment with massage and overfeeding was of no avail, because of the failure to recognise, or at any rate to treat, the mental factor. The one visit was sufficient to improve her condition, so that she had no occasion to consult me again. I have seen her since, and she is much improved, yet owing to her doubtful heredity I am not sanguine of a complete cure.

The same line of treatment was adopted in the case of the woman suffering from rheumatism. A full explanation of the case to her friends, and a clear and firm statement of her actual condition to herself, was sufficient to effect a considerable amount of improvement; but owing to her age and to the prolonged period of mental concentration and emotional disturbance before I saw her I do not think she will ever be quite well. This procedure takes time; nevertheless, I am quite convinced from my own practical experience that often a great deal more good is thus effected in relieving the state of nervous anxiety and tension than in prescribing an endless amount of medicine or giving exact details as to some particular line of dieting. The treatment by persuasion appeals to the patient's reason and his competency to form a judgment upon the facts placed before him, and may need to be repeated at frequent intervals.

2. *Suggestion*.—By the method of suggestion we appeal to another side, as it were, of the mental faculty. We try to arouse the patient's power of anticipation; we endeavour to secure the patient's confidence in our full understanding of his condition, and in our knowledge of the natural evolution of disease; and we suggest to him that the performance of certain actions, the adoption of some special line of treatment—whether it be massage, electricity, various forms of baths or a sea voyage—will inevitably result in his recovery. This method, again, is most useful in certain cases, yet has its limitations. It is the method of the arrogant and ignorant quack, who, by his strong personality and emphatic and repeated assertions of his

power to cure the disease from which the patient is suffering, exerts a profound influence over the suggestibility of the nervous sufferer, and thus is often able to effect a cure—or, at any rate, materially to improve the condition of the patient whose sufferings are largely the result of auto-suggestion and mental obsession, and who has failed to get relief from the qualified practitioner because the latter has not recognised or does not know in what way effectively to deal with the patient's mental attitude.

Unfortunately this method of treatment is often known to patients as that adopted by the quack; and, when the medical man attempts to use it by giving a placebo and suggesting to the patient that the medicine will be sure to cure him, he earns for himself the epithet of "quack." But this is no reason why we should not utilise the process to the fullest extent. As a matter of fact I suppose every practitioner does so more or less by encouraging patients, who are suffering from various forms of disease, in the hope of ultimate recovery. In special cases, however, the method requires to be used with caution, lest by suggestion the patient's attention become more fixed upon his special symptoms. Nevertheless the method can be availed of in treating many conditions. The sufferer from constipation, if he can use our suggestion that by going to stool at a certain hour every morning he will secure an evacuation, may be cured of his trouble; the same result may ensue to the sufferer from insomnia, on the suggestion that if he retire to bed at a certain hour he will be sure to sleep, and the dyspeptic who protests that he cannot digest milk in any shape or form can be made to digest it on the assurance that milk is the most easily digested food, and that if he cannot take milk no other food will agree with him.

This method can also be made use of in the treatment of alcoholism and drug habits, the suggestion being made that, after a certain line of treatment has been adopted, the taking again of alcohol or other drug will cause him to vomit, and being intensified by the simultaneous administration of apomorphia. This principle is also at the root of some methods of treatment of hysterical attacks of various kinds. The mental impression or obsession of the hysteric that he is anæsthetic or paralysed or cannot speak is corrected by the auto-suggestion created

by the use of a powerful faradic brush, combined with the suggestion that after the application of the electricity the paralysis or anæsthesia or aphonia will be cured. This element of suggestion is also a most necessary adjunct to massage and electricity in the treatment of cases of neurasthenia and psychasthenia; and herein lies the necessity that a successful masseur or masseuse should be a strong personality with every confidence in his or her own power of doing the work well, who can daily during the treatment also use suggestion. Apart from this, massage and electricity alone may effect some improvement in the nutrition, aid digestion and favour sleep, but will be insufficient to effect a cure.

3. *Hypnotism*.—This is, of course, a more profound degree of suggestion; but we are entirely ignorant of what hypnotism actually is or what happens when the patient is hypnotised. We know, of course, that the mental condition of the hypnotised person is one of eminent impressionability by suggestion. The condition is clearly one of automatism; the patient for the time being is like an animal whose cerebral hemispheres have been removed and which can perform any movement when forced to do so, but is incapable of initiating any voluntary movement. Impressions made upon the mind of the patient in this state are retained in the state of waking consciousness. By this method no doubt many wonderful cures have been effected, and it is said to be of distinct benefit in the treatment of the drink and drug habits.

But] while I am prepared to admit the value or the method in some cases, I do not accept without the proverbial grain of salt the records of some of the writers on this subject. I feel sure that if these reports were correct, and the results obtained were permanent, we should certainly be fast hastening on to a golden age when sickness and suffering would be things of the past. The fact that this mysterious power which can be exerted by one individual over another has been known for very many years, has been utilised in various ways, and yet has never been accepted by the general body of the profession as a safe and certain method of treatment, proves that, rightly or wrongly, the general feeling of the profession is against the use of a method which appears to be fraught with such immense possibilities for evil as well as for good. Personally, in spite

of all that can be said of the harmlessness of the procedure, I regard it as a method to be used only in exceptional circumstances and in the most guarded way, feeling convinced that we can secure as good results, though perhaps not so quickly or so dramatically, by the act of waking suggestion or persuasion.

The discussion on hypnotism at the annual meeting of the British Medical Association at Exeter in 1907 entirely bears me out in the views I have expressed on this subject. I think that the record of the very large number and varied character of the cases reported to have been cured by hypnotism by the opener of the discussion on that occasion is of as much value as the record of the cases of cancer cured by Chian turpentine by the Birmingham surgeon of the last century; and the confession of one of the speakers, who 20 years ago was an enthusiast in hypnotism, that his ardour had been considerably cooled by his later experience of frequent failures, is certainly worthy of note. Still I am sure that none of us will cavil at the use of hypnotic suggestion if by its means the slave of alcoholism or of drug habits can be freed from his chains and restored to normal mental control.

In conclusion, then, I would again urge the necessity of remembering that the human being whom we have to treat is different from the lower animals in possessing mind as distinct from instinct; that in every case of every disease we have to study carefully the influence of the mental factor in determining the character or the persistence of certain phases of the disease, or of certain symptoms and sensations; and that, unless we do take note of this factor and do treat it effectively we shall often fail to cure our patients, and shall find them figuring in the records of the cures of the faith healer, the Christian scientist, and the quack. If these remarks lead to a more careful consideration of this question by every practitioner in every department of medicine, my object will have been attained, and the goal of our treatment, *mens sana in corpore sano*, will be nearer accomplishment.

The Yalgogrin Microbe.—Milson Island, in the Hawkesbury River, N.S.W., is being put into a state of readiness for experiments with the Yalgogrin microbe, which is identical with the microbe of Dr. Danysz, for the destruction of rabbits. Dr. Tidswell, the Government Microbiologist, will be established there at an early date.

THE PROPHYLAXIS OF PUERPERAL ECLAMPSIA.

By David Hardie, M.D., Consulting Physician Lady Bowen Lying-in Hospital, Brisbane.

NEARLY two years ago I wrote a paper on this subject for the *Journal of Obstetrics and Gynaecology*, but an apology is hardly needed for introducing it for discussion to-night. And yet I am not sure. I have sometimes wondered why it has received so little attention in our medical journals. Is it because eclampsia is so very rarely met with, that we need not trouble ourselves about the question of its prevention, or that nothing can be done, or that the bulk of the profession already do all that is reasonably possible to avert it? The first reason must be excluded, the second may be a matter of opinion, the third is probably the most generally accepted one. All the more reason, therefore, why we should know what the general practice of medical men is in this respect, and what view is held as to the possibility of its prevention. That alone is my reason for reverting to it again. Personally I do not believe in half measures; either let us make no attempt to find out if toxæmia is present, and so let the patient take whatever risk there is of convulsions, or do thoroughly what we think is necessary to give us the desired information. I should explain at once that in the following remarks the personal element is evident, for which I hope you will pardon me. I shall relate only my own views and the practice I have adopted, and trust the members present will also relate theirs, so that by a fusion of ideas and suggestions some common action may be taken in a class of case where, it seems to me, such action is required.

In the paper referred to, I endeavoured to show that by examining the urine at stated periods during the last months of pregnancy, we might be so forewarned of danger that measures could be adopted whereby eclampsia might be largely prevented. It was not, nor is it now, my intention to maintain that eclampsia could be prevented altogether. That position would be untenable in the face of past clinical evidence, and will probably always remain so, for the simple reason the examinations cannot be made daily and other observations cannot be of a continuous nature. If it were not so, eclampsia would almost cease to exist. As it is, urinary examinations and observations can only be made occasionally, and the course of treatment must be so mapped out on these occa-

sions as to meet any emergencies that may arise during the interval. The shorter the interval the more these emergencies are likely to be successfully met. Though, therefore, on account of the limited number of our observations, we shall necessarily fail sometimes, if we can control early toxæmia in some, and have the option in others, of treating our patient for a condition where convulsions are only threatening, instead of being under the compulsion of treating her for established eclampsia, our object, so far as it is practicable, will be attained. My purpose to-night is to emphasise these points, and to show that our object is threefold—namely (1) to observe whether signs or symptoms of toxæmia present themselves; (2) to prevent, if it is possible to do so, our patient from passing from what may be a bad condition (subacute toxæmia) to a worse (advanced or acute toxæmia); and (3) from a worse to a worst (eclampsia).

When called upon suddenly to attend a case of eclampsia we are generally told that the convulsions have come on without warning, and that the patient had been previously in good health. On inquiry, however, we find that the feet and hands and perhaps the face had been puffy for some time, and that she had suffered from headaches and perhaps vomiting. The medical man himself knows that, if the urine be now examined, albumen will almost certainly be present, and that it had probably been present for some time. These, then, are the danger-signals, and if we fail to see them it is mainly because we have failed to look for them, or failed to do so sufficiently often.

Let me here remark that, from the point of view of the prevention of eclampsia, I can see little or no value in differentiating between the various types of pregnancy albuminuria. There may be, as our best authorities assert, an œdemic type, in which albuminuria with œdema appears at a comparatively early stage of pregnancy and which rarely proceeds to convulsions, and an eclamptic type of the later stage; but it seems to me that the distinction is one of no vital importance to the medical attendant, from the preventive point of view. There may, in the one case, be some, and in the other, great fear of convulsions supervening; but while it is safe to prophesy after the event, who is to tell beforehand what the event in any case may be? There is no absolute certainty what case will or will not give

future trouble, no matter what its type may be. It would really appear as if the difference between the various types of albuminuria in pregnancy is only a difference in degree of the poison, and dependent somewhat on the time of its evolution. For these reasons not only must every case of pregnancy be under supervision, but every case of albuminuria be looked on with suspicion. The reason for this is specially obvious in the case of primigravida, as it is well known that the majority of eclamptic cases belongs to this class. The significance of this fact is still more evident when it is remembered that of the total number of pregnancies of all classes those pregnant for the first time are largely in the minority. If a selection of cases be made, the women pregnant for the first time must therefore receive special attention.

How, then, are we to exercise this supervision, and specially how are we to do so without exciting suspicion in the woman's mind that she requires special care or that she is an invalid? This is an important point to remember, but by the exercise of a little tact and by bearing in mind that our concern for her should not be apparent, or as little apparent as possible, it can usually be accomplished. Further, I am convinced that if she feels that it is the universal custom of medical men to examine urine in pregnancy no idea of invalidism will suggest itself to her. The time was when the mere use of the clinical thermometer in the lying-in room was looked on with suspicion by the patient as suggestive of fever; now that it is in constant use this suspicion has vanished. So will it be when urinary examinations are made in pregnancy as a matter of regular and recognised routine practice.

Instructions when engaged to attend in confinement.—While, therefore, on the one hand, we desire to keep in the background the suggestion of invalidism on the part of the patient, we feel, on the other, that her interests would best be served if we were made cognisant of the presence of any or all of the early signs or symptoms of toxæmia that may present themselves during the course of pregnancy. How is this to be done? When engaged to attend are we to request the patient to see us should she at a later date have swollen hands or feet, headaches or vomiting, or should her urine become scanty? There are patients to whom such a request would create suspicion of all sorts of dreadful

calamities to follow; there are others again who have the good sense to feel all the greater confidence in her doctor if he is thus interested in following the course of her pregnancy. Each medical man will therefore answer this question for himself according to the temperament of his patient.

After giving instructions in matters of general personal hygiene, there are two points on which I insist in all cases, and let me remind you that I am referring to a woman who may not be far advanced in pregnancy, and who, at the moment, is perfectly well and presumably free from albuminuria. One is in regard to food and the other to the urine. I specially emphasise these, because, probably, attention to diet is the best preventive of eclampsia, while, so far as I know, a systematic examination of the urine is the easiest and most certain way of discovering whether eclampsia may possibly eventuate. At least it is the first essential step, though others will necessarily follow.

As for the former the directions are simple. No change need be made from the ordinary dietary of the household, except that animal food must not be taken more than once a day during the last two and (in the case of primigravida) three months of pregnancy. She is also requested to avoid taking a heavy meal during the same period. These instructions are given not merely to meet any contingency, such as the possible presence of albumen in the urine, that might arise between the dates when the urine is examined, but, because since less physical exercise is necessarily taken, the total intake of food should be on a correspondingly reduced scale. This is all the more necessary in the case of a patient whose appetite is particularly good, as I have on more than one occasion observed an attack of eclampsia to be preceded by a heavy meal. Beyond attention to these points, no further restriction is made in her diet during the course of pregnancy, unless at my request at a later date, as determined by the state of the urine. She is also requested to drink a glass of water night and morning and between meals.

As regards the urine, it matters not for our purpose whether the albuminuria of pregnancy be the result of primary disease in the kidney, or secondary to the formation of toxins of either maternal or foetal origin. That point may be left for elucidation by those who have the time and scientific acumen to do so. What we do know precisely is, that albuminuria is one of the most constant

signals of danger. It has been said that albumen is not always present in eclampsia, while by some it is maintained that the quantity present in the pre-eclamptic period of pregnancy has no constant pathological significance. For my own part I have never seen it absent in the former, and would prefer a small to a large amount in the latter. I also feel more satisfied if the specific gravity is high, especially if the total quantity of urine is not reduced. You must not imagine that I make an elaborate analysis. Time alone will not permit of this, and besides, until we know something more of the etiology of the condition, it is unnecessary for our purpose. I merely wish to know if albumen is present, and, as a rough estimate of the elimination of solids, the specific gravity. A microscopic examination may sometimes follow, but only as a matter of interest.

When engaged to attend in confinement, I request the patient to send me samples of urine on dates written out for her guidance. I do not know that we can specify the time when an examination may first be made. It would certainly be advisable to begin as soon as we are notified of the pregnancy, and we may either do this, or, in order to make it as little irksome to her as possible, have a fixed period in the later months of pregnancy for doing so. Now we know that eclampsia is rare before the beginning of the eighth month, and still more rare before the seventh, and, for the reason given, I have hitherto examined it for the first time in the later months of pregnancy. Till recently, I made the first examination at the beginning of the eighth month in all cases, and repeated it at the middle and end of the same month and thereafter weekly. In all, seven or eight examinations were made, whether albumen were present or not. For reasons to which I shall again refer, I should be more satisfied to make them in future weekly from the beginning of the eighth month, and to begin a month earlier in primigravida.

Instructions in sub-acute toxæmia.—We shall suppose that the first notification of toxæmia has been received by the presence of albumen, and we have to decide whether we should see the patient. So far as the case has gone there has been no albumen, and if this continued absent, there would be no need to see her from the time of the engagement until labour begins. As soon as albumen appears, however, and especially if, on more than one occasion, the case is different, as we desire to

know if, in addition to this, the patient has headaches, vomiting, or cedema. Perhaps the person who brings the urine may be able to inform us on these points, and if so, instructions in diet may be given without necessitating a visit. All the better if it succeeds; should it not, an interview is desirable.

I shall not enter into details of treatment, but submit a few general remarks. It is generally agreed that milk is the ideal food in pregnancy albuminuria, and how far other articles of diet may be combined with it will depend upon the character and intensity of the signs and symptoms, and upon the time of their appearance. When there is not much albumen nor much cedema, and no headache or vomiting, farinaceous foods may be combined with it, and either fish or fowl given once a day. Special care must be taken to avoid a large meal, should the patient have a particularly good appetite. In most cases that are carefully dieted the albumen entirely disappears; but should this not follow, I feel fairly satisfied it if can be kept under control, especially in the absence of other symptoms. If there is headache or occasional vomiting also present, and a larger amount of albumen, the diet should consist of milk, green vegetables, such as French beans and cabbage, and a liberal allowance of fruit. In order to remove the former and to keep the albuminuria under control, the milk may have to be reduced to a minimum, perhaps even to a pint and a half a day.

I would especially remark that the later in pregnancy the albumen or other signs appear, the more the diet must be restricted, as, apart from the eclamptic type of nephritis at this stage, there is no time to try a less severe diet, such as one would be inclined to do if they appeared at an earlier date. Again, less exercise should also be taken, and much benefit may result from resting a few hours daily, so as to compensate for any reduction in diet that may be prescribed, and to provide less waste products for elimination. The more marked the general symptoms, the more this is necessary, and, indeed, in some cases, she should be kept in bed altogether.

When there is a large amount of cedema, fluids, including milk, should be largely cut off for the time being. There are already gallons, it may be, of water in the connective tissues, not only of no use, but actually in the way, and if this were reintroduced into the vascular system and excreted by the skin and kidneys, it would not only dilute the

toxins, but carry them away, just as effectually as fluids given by the stomach. A little milk to drink, farinaceous foods, fruit, and vegetables, citrate and acetate of potash, and a few days' rest in bed will generally remove the cedema, and thereafter we may start afresh with a fairly liberal allowance of milk and any other article of diet that we consider right, according to the condition of the patient.

The bowels should, of course, in all cases be attended to, and if an aperient is necessary, I know of nothing better than Epsom salts. My experience of thyroid extract is limited, and the results are doubtful.

Treatment for impending eclampsia.—Should, in spite of these means, the albumen increase, the headaches become persistent, vomiting begin or get worse, and drowsiness appear, and, especially, should pain in the epigastric region be complained of, we may be perfectly certain that convulsions are near at hand. What is to be done? I would decidedly place first in importance the absolute withdrawal of food, including even milk, while water, and water alone, is given, if there is not much cedema, until there is a marked improvement in the symptoms. This is generally observed within twelve hours; but the improvement is not sufficiently established to warrant us in resuming the milk diet, and for from thirty-six to forty-eight hours I give the patient nothing but water to drink. She makes no complaint but rather appears grateful that she is not asked to take food, and in the end looks all the fitter on this starvation fare. Secondly, a pint of saline fluid should be passed into the lower bowels every two to four hours. Thirdly, the skin must be made to act, and I find nothing answers better for this purpose than plenty of blankets, hot bottles round the patient, and phenacetin or aspirin. Purgatives and diuretics should also, if possible, be given, but they may not be retained by the stomach, and in that case we have to rely entirely on saline injections and on our efforts to keep the skin acting well. Vomiting is, however, not without its compensations, as it is not only attended by a reduction in blood pressure, but is really a safeguard in the event of any attempt being made to give milk to drink before the improved condition of the patient warrants it.

As soon as there is a response to this treatment and there is free perspiration, the question next arises whether pregnancy should

be prematurely terminated. This, I think, depends upon whether the patient has been previously put on a restricted diet. If she has not, attention to this point, after the disappearance of urgent symptoms, may enable her to go to full term; but if, on the other hand, she has, then the sooner labour is now brought on the better. This I do by introducing a large-sized bougie well up into the uterus. Labour pains do not, as a rule, set in for 36 hours, but this is beneficial, because the patient will meantime be so relieved of toxins that the onset of uterine contractions, with the increased blood pressure and reflex activity attending them, will be less likely to promote convulsions. When labour is well advanced she may now be given milk to drink freely, the phenacetin or aspirin being also continued until the child is delivered.

To put the matter briefly, in cases of impending convulsions, starve the patient, obtain free action of the skin, use saline injections to dilute the poison and to help elimination by the kidneys and skin, induce labour, if this is decided upon, and resume milk diet when the latter is well established. In carrying out this treatment the object aimed at is, wherever or whatever the *fons mali* may be, to throttle down the inlet and to open well the exhaust. The former is as essential as the latter, and only those who have seen it can appreciate at its full value the marked improvement that follows such treatment.

Nearly ten years ago, the importance of examining the urine in pregnancy was very decidedly brought home to me in the case of a patient who, within a period of only a few days, became almost blind, as our president will tell you, from optic neuritis, but who, after induction of premature labour, recovered, in time, perfect vision. Although since that time I have been in the habit of examining it fairly regularly, I have certainly not done so, until recent years, in a systematic manner, and unless this is done I am convinced that we may as well leave it alone and let the patient take her chance of eclampsia. So far as my experience of urinary examinations in pregnancy goes the cases may be divided into the following classes:—1. Those in whom the urine is free from albumen; this represents 70 per cent. 2. Those in whom the albuminuria is slight, not constant, and disappears entirely. This represents 18 per cent. 3. Those in whom it is more largely present and persists to the

end; this represents the remaining 12 per cent. This class must be divided, however, into two important sub-classes, one in which the albumen never assumes large proportions, and, indeed, in the majority of cases, is reduced and brought by diet to the vanishing point, and another in which the amount is so large that the urine may be nearly solid on boiling. The latter is exceedingly rare, and represents those cases that either have or are threatening to have eclampsia, and my contention is, that they would be still more rare if sufficient warning of danger were given. This, of course, is the point, and the question is—Can this warning be obtained? I can only say that, personally, I have seen, as I am sure you all have done, several cases that, though not as yet in the advanced stage of toxæmia, gave every indication, from general signs and symptoms, apart from the state of the urine, that they would have been there, and two cases that were actually in this stage and would certainly have reached the stage of convulsions were it not for the timely warning of danger given me, in the first instance, by the condition of the urine. I have been so impressed by the occurrence of these cases that when the patient has actually reached this advanced stage or has eclampsia, the question arises in one's mind whether it may not be due to a large extent to some defects in our method of observation. In order to show you what I mean I shall briefly relate two cases of the eclamptic type which occurred in my practice, within a few days of each other, some three months ago.

Both patients were pregnant for the first time, one at the end of the seventh and the other the eighth month. In the former case I had just made the first urinary examination, on the date fixed upon three months previously. Albumen was present to the extent of one-half. This was the first indication that any thing was amiss, and considering it advisable to visit the patient I found she had suffered from frequent attacks of vomiting and headaches. I put her on a purely milk diet and ordered Epsom salts and a diuretic and rest for a few hours daily. Three days later the urine was almost solid on boiling, there was some drowsiness, and the vomiting was more persistent. It was clearly necessary to terminate pregnancy, if convulsions or other serious complications were to be prevented, as under this *regime* her condition retrogressed. Accordingly I put her on the treatment already described for threatened con-

vulsions, and after a few hours induced labour. When uterine pains set in, 36 hours afterwards, the vomiting and headache had gone, and her general condition, except for the urine, which was now quite solid on boiling, had improved in every respect. No convulsions supervened, and she made an uninterrupted recovery. The child lived, and is doing well on the breast. The urine cleared up greatly the day after the confinement, but there is still a faint trace of albumen in the evening.

In the other case, I had examined the urine on two occasions with a negative result. On the third occasion, at the end of the eighth month, and two weeks from the previous examination, there was a fair amount of albumen present. I visited her that afternoon and found she had suffered from headaches, while there was cedema of the face and extremities. She expressed herself as feeling very well. She was put on a milk diet, much to her regret, as she was a hearty eater, but was allowed fish or fowl once a day. The latter was a mistake, as the sequence shows. Three days afterwards the amount of albumen had largely increased, and milk alone was given. She was also requested to take Epsom salts every morning and to rest in bed. These directions came too late, for convulsions came on early next morning, being preceded for an hour or two by severe gastric pain. On my arrival I injected morphia gr. $\frac{1}{4}$, and had her promptly removed to a private hospital. She had three convulsions in rapid succession before removal, but at this stage of the case, none after. The usual treatment was carried out, except that on account of vomiting no drugs could be given. When the skin began to act the vomiting stopped, and thereafter water and phenacetin were given. Twelve hours after admission the urine was solid, and I induced labour. Dr. Love saw her with me in the evening and concurred in the treatment. Milk was resumed when the second stage of labour was reached. In this case no milk had been given from the onset of convulsions till this time—60 hours after admission. Her recovery was uneventful, except that on the whole of the second day after delivery she complained of constant pain in the region of the epigastrium. It was suggestive of convulsions, and sure enough she had one that night. Next morning the pain had vanished. It reminded me of a storm that had to burst, its discharge leaving her intellect all the clearer and her general comfort all the greater because of its occurrence. The child lived,

and, though at first puny, has grown on the breast to be a fine child. The urine was free from albumen on the third day.

In commenting on these cases I must first of all express regret at not having applied, in the one that had eclampsia, when the condition was first recognised, the same treatment as I did in the other, but at the moment she did not seem so desperately ill. It emphasises the need to take all the less risk, the nearer the patient is to full term, especially if she eats heartily. Again, there can be no doubt the warning given was not sufficient to prevent grave toxæmia in both instances. Are we, then, to conclude that urinary examinations are of no practical value in this direction, or that the value received is not commensurate to the trouble in making them? This certainly would be a bold assertion to make. Even as it was, I was able in the one case, by examining it for the first time at the end of the seventh month, to detect the presence of severe toxæmia, and so to take measures for preventing the development of eclampsia, while, in the other, I find some comfort in the thought, that possibly the convulsions would have been less under control had the patient not been put on a reduced diet for some days previously. That so far is satisfactory, especially so in the first case; but I should have been more satisfied had I received earlier notification of danger in both cases, so that, in the one, advanced toxæmia, and in the other, eclampsia might possibly have been averted. It seems to me that that object could have been attained, in the one case, by earlier, and in the other, by more frequent examination of the urine. One cannot, of course, be certain of this without positive proof, but I am convinced from watching analogous cases of albuminuria in pregnancy, that albumen was present for at least some days before it was detected by examination. If that be so, the question revolves round the point as to the frequency with which these examinations should be made, and I fancy we cannot be far wrong, if, in general practice, they be made weekly.

The lesson, then, to my mind, to be learned from these, is, that the urine should be examined weekly from the beginning of the eighth, and in primigravida the seventh month onwards, and biweekly if suspicious symptoms arose. In the event of albumen appearing, we should have the satisfaction of knowing that it has been present for six days at the most, and that therefore the diet could be regulated, severely if necessary, possibly

before profound toxæmia has become established, while in the event of the latter developing, in spite of this dietary, we should have the opportunity of treating it, or of ending pregnancy prematurely, before convulsions supervened. In other words, the treatment for toxæmia in a mild form should take the place of that in a more grave form, while the treatment for the latter, where convulsions are threatening, should take the place of that now so often required for eclampsia. This at least is our objective, and if we cannot always reach this ideal, we can make an honest attempt to do so.

One other point. If the systematic examination of urine in pregnancy gives information whereby we may use means for controlling toxæmia, and in some cases preventing eclampsia, how are we to meet the case of those who engage only a midwife to attend them or who go direct to a lying-in hospital? As regards the former it is probably too much to expect midwives to examine urine, but they should certainly not be considered fit for registration unless they can do so, and not only know how to manage a simple case of labour, but are able to recognise, amongst other things, the symptoms that are suggestive of approaching eclampsia. By keeping in touch with the women they are to attend, they would thus be able to advise when a medical man's services were required before it was too late. We cannot, however, hope to meet the needs of this class of patient until we have a law prohibiting unregistered midwives, except in outlying districts, from attending women in labour.

The case of those who go to a lying-in hospital is still less easy to meet, as these have neither medical man nor nurse interested in their welfare. There are some of them, however, who arrange beforehand with the hospital authorities to receive them when the time for labour arrives, and such should be compelled to send specimens of urine weekly until they are admitted. There are others again who seek refuge in some charitable institution during the last month or two of pregnancy, prior to their admission to hospital, and if the former were affiliated to the latter, and general supervision by a competent matron in charge, under the direction of members of the medical staff, carried out during their stay in this institution, there is probably no class of case that could receive more careful attention than these. The urine might easily be examined and further observations made daily, and should this be done

I have not the least hesitation in saying that amongst such patients eclampsia would be a thing of the past.

(Read before the Queensland Branch of the British Medical Association.)

NOTE ON THE ALBUMINURIC RETINITIS OF PREGNANCY.

By J. Lockhart Gibson, M.D. (Edin.), M.R.C.S.,
Brisbane.

It may be worth while, as a supplement to Dr. Hardie's interesting paper, to call attention to a serious condition which is apt to supervene as a result of the albuminuria of pregnancy, which is, of course, averted if the prophylactic measures he advocates are taken and are successful, but which, if not prevented, calls for immediate action on the part of the medical attendant. I refer to the albuminuric retinitis of pregnancy. The observation of some eight or more cases of this serious affection has led me to support very strongly the opinion that the onset of albuminuric retinitis calls for the induction of labour without delay, because its onset indicates that the toxæmic condition of the blood has reached a state so serious that the time for less radical measures has been overstepped. If this state is permitted to persist, not only is eclampsia very likely, but permanent damage to the kidneys will have resulted with persistence of albuminuria, as well as permanent and serious damage to sight.

The occurrence of albuminuric retinitis in a case of kidney disease, not associated with pregnancy, makes it necessary to give a very serious prognosis. It is, in fact, pretty generally accepted that such a patient will not survive its onset for two years. I cannot myself recall a case of albuminuric retinitis not associated with pregnancy who has lived as long as two years after its recognition.

The prognosis when albuminuric retinitis occurs during pregnancy is much less serious provided that means are taken to relieve the uterus of its contents. If it be recognised early, and the uterus emptied promptly, no permanent damage may result either to kidneys or to sight.

If, on the other hand, the warning be neglected and the case be allowed to continue until it either aborts itself or reaches full term, not only is permanent damage done to the eyes, but to the kidneys also, and albuminuria is apt to persist, even although the case may escape eclampsia.

Evidently persistent albuminuria subsequent to pregnancy even when associated

with permanent results of albuminuric retinitis in each fundus oculi has not the same serious significance as the same symptoms when connected with kidney disease not a result of pregnancy. Such cases may, indeed, live for many years. That they are, however, in constant danger is, I think, suggested by the following case:—

Patient, aged 37 years, referred to me in 1906 for eye examination on account of persistent albuminuria and severe migraine attacks. These dated from a pregnancy eight years previously. She stated that she was blind before labour was induced at eight months. A stillborn child resulted. Her blood pressure at the time I saw her had been ascertained by Dr. Turner, who referred her to me, to be high, viz., 210. Vision: Right eye, $\frac{3}{8}$; left eye, $\frac{5}{8}$ partly. Right disc in a state of partial post-neuritic atrophy, and a number of retinitic spots throughout the fundus. Left disc in a state of slighter post-neuritic atrophy, and a number of retinitic spots in the fundus encroaching on the macular region. I found 1 diopter of hypermetropic astigmatism in each eye; its correction gave her right eye $\frac{1}{2}$, left eye $\frac{3}{4}$ partly, and she obtained immediate relief from headaches and to her eyes. Of this she was very satisfied. This relief persisted for the remaining month of her life. She died as a result of sudden increase of her kidney trouble, probably as a result of a chill, just one month after I saw her. She had, until her last illness, been hardly, if at all, in worse health than for some years.

That the future outlook may be very hopeful, in spite of very serious albuminuric retinitis, provided the attendant recognises the trouble early and acts promptly, is proved by a case I saw ten years ago in consultation with Dr. Hardie. It was before he grasped the importance of his present attitude, or he might, he says, have been able to pilot her to full term without such serious trouble. Fortunately, however, she was watched carefully, and the result was eminently satisfactory, except that a living child was brought into the world a few weeks before its time.

The patient was within two or three weeks of her "full term." She had noted for a week that her sight was less good than usual and progressively less good. There was no oedema of the feet nor elsewhere, but on the day before I saw her the urine had contained half albumen. Otherwise apparently she was in good health.

I found her vision $\frac{3}{8}$ with each eye. Marked optic neuritis in each disc, tortuous retinal veins, and large white patches of exudation into the retina around each disc, chiefly above it. One patch in the left fundus was near the macula, but the centre of neither macular region was more than oedematous looking. Immediate induction of premature labour was decided upon, and a healthy child was born next morning.

Twenty days afterwards I had an opportunity of examining her eyes. She stated that after I saw her, sight had become still worse before it began to improve. Examination of each fundus confirmed this. Vision had improved to right eye $\frac{1}{2}$, left eye $\frac{3}{4}$. The appearance of each fundus at this stage deserves record.

Right Eye.—Optic neuritis still present. No outline to disc, but practically no swelling in the disc. Stellate retinitic figure at the macular region, but the central $\frac{1}{2}$ of the macula was pink and nearly natural looking. There were several white patches of exudation between the disc and the macula, and some large ones which had been previously noted were still above and to the outer side of the disc. A small blood red spot below the macula, and several white patches below it also.

Left Eye.—Pretty similar to the right fundus, except that the stellate figure at the macular region was larger and the central area apparently free from disease at the macula was smaller. Found to be nearly emmetropic.

Two months after confinement vision was: Right eye $\frac{3}{4}$ and some of $\frac{1}{2}$, left eye $\frac{3}{4}$ and one of $\frac{1}{2}$. Fundus appearances still very marked, but improving. Three months after confinement: Vision, some of $\frac{3}{4}$ with each eye. Still marked evidences of trouble in each fundus. Five months after confinement: Each fundus much improved, though remains of trouble more marked than her sight would lead one to expect.

Eight months after confinement vision was $\frac{3}{4}$ with each eye. A few faint spots could still be seen around the macular region of each eye. Report of urine: No albumin in the morning, merest trace at night.

I had an opportunity of examining each fundus $6\frac{1}{2}$ years later. Vision was $\frac{3}{4}$ partly with each eye. Right fundus very perfect. Even macular region shows no mark of previous disease. In the left fundus there was one small white spot above the macular region. The outer edge of each disc was a

little irregular. The patient still enjoys good health and good sight.

The following case would have been much more satisfactory had she not, I believe, insisted on going to full term.

Aged 35 years. Complained of seeing badly for more than 16 days prior to the birth of her first baby, at full term. Albumin found in urine 16 days before birth of child. No eclampsia. Eyes examined two weeks after labour. Then vision was, fingers: Right eye at $1\frac{1}{2}$ yards, left eye $2\frac{1}{2}$ yards. Subsiding optic neuritis, large, pale discs, many patches of exudation into each retina, and large area of trouble at each macular region. Still albumin in urine, though much less. Four months later said to have no albumin. Sight had improved a good deal, though still very defective. Vision $\frac{1}{4}$ and part of $\frac{1}{2}$. Left a trifle the better. Marked evidence of disease in each fundus, specially between each disc and macular region; in fact, occupying the whole area between discs and maculae and apparently including the latter. Her sight has not improved, I believe, beyond $\frac{1}{2}$ partly, though her confinement occurred about a year ago. I do not expect further improvement, in fact I did not expect as much.

The conclusion from such cases to me seems evident. It is the duty of the medical attendant when albuminuric retinitis supervenes to bring on labour without delay, and to refuse to take the responsibility of the case, if his advice is not adopted.

(Read before the Queensland Branch of the British Medical Association.)

ON POST-DIPHThERITIC HEART FAILURE.

By J. Macdonald Gill, M.D., Sydney.

THE heart changes in diphtheria are of great interest to both clinicians and pathologists. Yet one may truly say that, in spite of many admirable researches, a clear conception of their nature was not possible till quite recent years. The physiological ideas and experiments of Gaskell and Engelmann, the anatomical work of His, Tawara, Keith and others, and the clinical researches of Mackenzie have all combined to almost revolutionise our ideas on cardiac pathology. It is now quite possible to form a clear conception as to how variations in cardiac rhythm may occur.

Dr. Mackenzie has shown how much assistance tracings of the pulse, arterial and venous, may afford one in such cases. It is not often possible to get jugular tracings in

diphtheria; but radial tracings should be useful.

It is necessary first to look at the subject from the pathological standpoint. There can be no doubt but that the heart affection in diphtheria is merely part of a general toxæmia; and that this toxic process, while usually general, may be patchy. In all organs (whether heart, kidney, liver or skeletal muscle) the pathological lesion is essentially the same, viz., the condition known as "fatty degeneration"; there is no inflammatory reaction in the ordinary sense (as indicated by the exudation of leucocytes). In the heart muscle the fibres are occupied, often completely, by large or small globules staining black with osmic acid or red by Soudan III.

The usual teaching at the present day is that "the muscular tissue of the heart may be in a condition of fatty degeneration, which varies to a greater or less degree, but is frequently absent." (Allbutt's System of Medicine, vol. I., 2nd edition.) The same author (Andrewes) further states that the fatal syncope is due to a direct action of the toxine on the cardiac muscle. All recent authors agree that the trunk of the vagus is normal. Bolton, in 1903, described degenerative changes in both motor and sensory nuclei of the vagus in the medulla oblongata. None of the authors I have consulted have made any attempt to explain the variations in the pulse of diphtheria. Dudgeon published an interesting paper in *Brain*, June, 1906, on "Acute diphtheritic toxæmia, with special reference to acute cardiac failure." This author observed fatty degeneration of the heart muscle in a guinea-pig, 16 hours after the injection of a lethal dose of diphtheria toxine. He also observed the same thing in a human case fatal on the fourth day, and quotes Bolton as having seen it in a case fatal on the third day.

My own observations date from the year 1897. In 1897 and 1898 I examined the heart muscle in several cases of diphtheria fatal from asphyxia or broncho-pneumonia, for fatty degeneration (osmic acid stain), but found it always absent. None of these children died of heart failure. In 1900 I examined my first case, Case I. The heart showed extreme fatty degeneration. Some slowing of the pulse was noticed on the third and fourth day after admission; the pulse rate rose again before death to 136. This slowing would be coincident with the clearing of the membrane off the throat and the fall

of the temperature to normal. This is usual, and should not be looked upon as pathological. I was astonished at the extent of the fatty degeneration. In the year 1901 I had the opportunity of examining several fatal cases of primary heart failure, there being, as it were, an epidemic of this type of the disease in Sydney. I append notes of two cases of slowing with fatty degeneration (Cases II. and III.), also notes of a case showing increased frequency with no fatty degeneration of the ventricles to speak of (Case IV.).

In 1903 another case occurred which I shall record in more detail (Case V.). This child, five years of age, was admitted on the ninth day of the illness, and died after being in the hospital 11 days, that is, on the twentieth day of the illness. As might be expected, the child had all the features of the malignant type, a great deal of membrane, offensive breath, and a heavy cloud of albumen in the urine. There was also laryngeal obstruction requiring immediate tracheotomy. As far as the local throat conditions were concerned, the child did well, the tube being finally left out of the trachea on the fifth day after admission. Paralysis of the muscles of deglutition was first observed on the fifth day, and becoming more severe, feeding by the nasal tube became necessary on the eighth day. The urine was tested on three occasions, and each time contained a heavy cloud of albumen. The pulse, after the laryngeal obstruction had been relieved, was about 120, never falling below 110; and was always regular till the fourth day after admission, when it was 120 at 2 p.m., 86 at 6 p.m., and 72 at 10 p.m., being of normal strength all the time; and so it continued to the end, the variation in rate being most striking. For example, on the second day before death took place, the pulse at 2 p.m. was 74, at 4 p.m. 120, and at 6 p.m. 60. On the evening before death, at 6 p.m., it was 152 and irregular; at 6 a.m. the next day it was 64 and irregular. Death took place at 9 a.m. from heart-failure. At the post-mortem examination there was no obvious naked-eye change in the heart-muscle, except that the left ventricle was slightly dilated; microscopic examination showed no fatty degeneration of the left ventricle. It is to be noted that when the pulse was slow it is generally said on the chart to be regular or normal. I have given this case in full, as this type has not been described before as far as I know. I have seen similar cases since which have all been

fatal. For example, in a severe case of diphtheria, of the septic pharyngeal type, recently under treatment at the Children's Hospital, the pulse in the morning of the day of death was 60, whereas in the afternoon about five it was 120, very soft and difficult to count at the wrist; death took place suddenly at 9 p.m. The child had been ill three weeks without having medical advice. The parents refused permission for a post-mortem examination.

Before Tawara's work was published, one was usually content when examining the heart-muscle microscopically to remove a portion from the left ventricle near the apex. Sometimes a piece was also taken from the right ventricle. The auricles were seldom, if ever, examined. The fatty degeneration of the heart muscle in diphtheria is generally diffuse, not patchy as in acute rheumatism. One may therefore safely assume that, if present in the part examined, the rest of the ventricle is affected. This need not apply to the a.v. bundle or its branches, as they are separated from the ordinary ventricular musculature by definite fibrous sheaths. On the other hand it is probable that if one part of the heart be affected, other portions may be healthy or approximately so; or else how could the heart go on beating, however imperfectly, as it may do for some days?

There is no need in the present paper to describe the A.V. bundle in full. Those interested are referred to the writings of Tawara and of Keith and Flack. It is sufficient to say that the bundle is the only muscular connection between the auricles and ventricles; and that if it be divided or destroyed, the auricles and ventricles pursue an independent rhythm, the auricular rhythm being $2\frac{1}{2}$ or 3 times as fast as that of the ventricles. This is the condition known as "heart-block." The block may be only partial. The upper or auricular portion of the bundle is somewhat different in structure from the rest of the bundle, and forms a "node," in which the stimulus to contraction of the ventricle probably arises when the auricles are paralysed, as in advanced cases of mitral stenosis, or in "paroxysmal tachycardia."

The similarity of well marked post-diphtheritic slowing of the pulse to "Stokes-Adams" disease must have occurred to many minds. In both the pulse is generally regular, each beat being fairly forcible; there are no abortive ventricular systoles, as an examination of the heart with the stethoscope will show; and this slow pulse is not influenced

by agencies which ordinarily send up the pulse rate, *e.g.*, atropine, emotion, etc. Dr. Litchfield recorded (in the *A.M.G.*, 1898) a case in which numerous brief epileptiform seizures occurred, the pulse being below 40 for some days, finally slowing down to 20 before death. One may therefore assume that the pathological basis of the two conditions is probably the same.

I think that Cases II. and III. in my series are examples of "heart-block." In both the ventricular muscle was fatty, and marked slowing did not take place till shortly before death. I take it that slowing developed when the process of degeneration invaded the main A.V. bundle. I think that in Case I. the A.V. bundle was not affected; death being due to the weakness of the ventricular muscle, which was fatty. In case IV. the left ventricle was normal, and the pulse rose to 192 before death. In this case I think the auricles were probably paralysed, and that a condition similar to a "paroxysmal tachycardia" was set up, that is, the A.V. node set the rhythm of the ventricle, which in such cases always beats very rapidly. In this case it is noted (post-mortem) that both ventricles were much dilated. This dilatation is either secondary to the rapidity of the contractions, or primary, and has been observed before in fatal cases of tachycardia. In Case V. the most obvious explanation is partial "heart-block." I suppose that in this case the auricles were paralysed, the rapid rate being "nodal" in origin.

A few words on treatment will not be out of place. An adequate dose of antitoxine, given as soon as the case comes under observation, will generally prevent subsequent cardiac trouble. Twenty thousand units of antitoxine should be given, and more if necessary. Absolute rest in bed in the recumbent position is essential. Strychnine is the only drug of value, and should be given freely. Adrenalin and digitalis are useless; morphia may be given to relieve restlessness and distress.

SUMMARY OF CASES.

Case I.—Girl; age, 3½ years. Admitted, June 26th, 1900; died July 1st, 1900. Said to have been ill three days; a neglected child. On admission: Membrane on both tonsils, soft palate and pharyngeal wall; offensive smell; no palate paralysis; a heavy cloud of albumen. Pulse: On admission, 108 and 120; on June 28th, 72 and 78; on June 29th, 64, normal. It then gradually rose to 100, and was 136 before death. The pulse

failed suddenly about 24 hours before death. *Post-mortem*: The heart muscle was excessively fatty; the left ventricle only examined.

Case II.—Boy; age, 10 years. Admitted February 2nd, 1901; died February 12th, 1901. Said to have been ill nine days. On admission: A great deal of membrane; malignant diphtheria; paralysis of muscles of deglutition, persisting till death. The pulse varied very little, between 80 and 100, till the day before death, when it rose to 118; the last record, shortly before death, was 54. Urine: Heavy cloud of albumen; twice tested. *Post-mortem*: Heart muscle (left ventricle) was excessively fatty.

Case III.—Girl; age, 6 years. Admitted February 4th, 1901; died February 8th, 1901. Said to have been ill six days. On admission: Malignant diphtheria of the hæmorrhagic type; pharyngeal paralysis. Pulse: On admission, 120; about 24 hours after admission, 80; on the third day it varied between 84 and 118, soft and irregular; fourth day, gradually slowed to 48; fifth day, the temperature rose to 106° two hours before death, pulse rate being 52. *Post-mortem*: Fatty degeneration of the heart muscle (left ventricle).

Case IV.—Boy, age 4 years. Admitted February 19th, 1901; died March 3rd, 1901. Said to have been ill six days. On admission, malignant diphtheria; no pharyngeal paralysis; knee-jerks present. Urine: Cloud of albumen present. The pulse rate was generally 100 to 120 or 128, slowest rate was 80 on the fourth day; it began to rise suddenly about 24 hours before death, when it was 192, the temperature being 102°. The pulse varied between 180 and 195 during the last 24 hours of life. *Post-mortem*, no disease of any organ except the heart; both right and left ventricles much dilated. Microscopically, there was no fatty degeneration of the left ventricle, but the right was very slightly fatty.

Case V.—Fully described in the text.

N.B.—These cases were selected from among others because a microscopic examination of the heart muscle had been made in each. The heart muscle may be excessively fatty under the microscope, yet to the naked eye may appear absolutely normal.

Addendum.—Since this paper was written I have had the opportunity of examining the heart muscle in two cases of diphtheria, fatal from heart failure. The first was a child, 11 months old, under treatment at the Coast

Hospital. For this specimen I am indebted to Dr. Wallace, who, knowing my interest in the subject, preserved the heart and handed it to me. This was an example of the severe membranous type. Death took place five weeks after admission. The pulse showed no special variation in rhythm till two days before death, when it was noticed to vary between 150 and 40. The heart muscle showed nothing abnormal to the naked eye; the cavities were not dilated. Microscopic examination showed the ventricular (left) muscle to be practically normal. The main A.V. bundle showed well-marked vacuolation of the protoplasm in parts, which was less pronounced towards the distal end of the bundle. The cardiac musculature, both auricular and ventricular, in the immediate neighbourhood of the bundle also showed vacuolation to a less degree. These vacuoles were no doubt due to the presence of fat globules. This case, then, confirms my views as to the nature of Case V in my series. The second case was in the Children's Hospital quite recently, under the care of Dr. Littlejohn, who has kindly allowed me to make use of the notes. This child was 6 years and 9 months old and had been suffering from sore throat for 12 days before admission. This was an example of the malignant type. She was admitted on September 3rd at 2 p.m., and died on September 5th at 6 a.m. On admission the pulse was very weak, rapid and irregular; it is given on the chart as 96 and 120. Dr. Rutledge, the resident medical officer in charge, tells me that the count at the wrist was probably not reliable, as it was hard to count with the stethoscope. He compared the pulse to that of a failing "mitral" heart. The urine contained a heavy cloud of albumen. I saw the child next day, 28 hours after admission. The pulse was so soft that it could not be counted at the wrist; counted with the stethoscope it was 60, perfectly regular, except for the occasional occurrence of a small extra beat quickly following an ordinary one. These extra beats were rather infrequent, about one a minute, and did not disturb the rhythm of the heart. The apex-beat was in the normal position, and well marked. There were no murmurs. At the post-mortem examination the heart muscle was unusually pale; there were a few small hæmorrhages under the serous covering and in other situations. The cavities were not dilated. There was no valvular lesion. Microscopic examination showed universal fatty degeneration of the muscular tissue, most advanced apparently

in the right auricle. Soudan III was used as a stain except for the A.V. bundle, which was embedded in paraffine, and serial sections prepared and stained with hæmatoxyline and Van Gieson's stain. The bundle showed well-marked vacuolation, in parts extreme, of the muscle fibres. One of the frozen sections stained with Soudan III divided the right branch of the bundle, shortly after its commencement, just as it enters the moderator band. This section shows the fatty change in the right branch to be quite as marked as in the other parts of the ventricular muscle. The histological examination of this heart then entirely confirmed one's expectations. There are two points of special interest in this case. First, the absence of any venous pulse. Venous pulsation in the neck is a striking feature in ordinary cases of heart-block. Its absence in this case was due, I suppose, to paralysis of the right auricle. Secondly, the "mitral" pulse on admission, going on after about 28 hours, to the pulse of heart-block with an occasional extra beat. That meant, I take it, that the A.V. node set the heart rhythm at first, the auricle being paralysed; that as the degenerative process advanced the A.V. node could only produce a small extra beat now and then, and that heart-block only became complete shortly before death.

(Read before the West Australian Branch of the British Medical Association.)

GASTRO-ENTERITIS IN CHILDREN—CAUSES—PROPHYLAXIS AND TREATMENT.

By E. A. Officer, M.B., Ch.B., Perth, W.A.

Causes.—As we find gastro-enteritis so much more frequently in artificially than in breast-fed children, we are forced to the conclusion that diet plays a much more prominent part in its causation than is popularly believed.

A breast-fed child does get attacks of gastro-enteritis, but these attacks are rare, compared with the attacks in artificially-fed children, and when the trouble does occur in a breast-fed child our task is very much easier in dealing with it, as a breast-fed child responds to our remedies much more readily.

The artificial food given to the child, the quantity at each feeding, the intervals between meals, and the methods of administering the food all play an important part in determining the health of the baby.

The particular artificial food may not agree with the child, either from its being unsuited

to the age of the child, or it may be suitable for the age of the child, whilst the child is unsuited to that particular food.

Having selected a food suitable for the age of the child, we meet with the further risk of having the food given in too concentrated a form. This will, sooner or later, cause an indigestion which is very frequently the forerunner of gastro-enteritis, as the slightest indiscretion in the diet of a child with indigestion will almost surely set up a gastro-enteritis.

The quantity of food given and the intervals between feedings act more or less in the same way as too concentrated a food, if the quantity and intervals are not properly regulated.

The methods of administering the food may play an important part. There are three methods that may be used, viz.:—By spoon feeding, drink out of a cup or other suitable vessel, or per bottles of various kinds.

The first two are by far the safer, though they entail a great deal more trouble than feeding from a bottle, as is most frequently done.

Choice of the bottle.—One cannot condemn too strongly the old-fashioned feeding bottle, with its rubber tube of varying length and varying degrees of danger, through the utter inability of cleansing them, no matter how careful the nurse or mother may be. The only bottle that should be allowed is one with the fewest parts, each of which can be thoroughly scalded and cleansed, a nipple that can be inverted and every part cleansed, and a bottle that has no crevices to harbour infection. Having a suitable bottle does not mean that the food will be properly administered. The old tube bottle is so popular on account of the ability of the mother to place the child in its cot or other sleeping place and put the bottle down and then the baby can help itself easily. This cannot be so easily done with the safer bottle, although it is frequently attempted. We should, and cannot too strongly, impress on mothers and nurses that the child should be taken up and fed by some responsible person holding the bottle, and occasionally withdrawing the nipple from the child's mouth, in order to prevent its getting the food too rapidly.

Infected Food.—Infected food is the greatest danger in artificially-fed babies, whether the infection is conveyed in the food itself or in the water or other diluents used in the preparation of the bottle.

Atmospheric Heat.—This of itself is not a cause of gastro-enteritis, but, to my mind, may

act indirectly in lowering the resisting power of the child, and so a food which might cause no trouble if the child were very fit may give rise in the lowered state of health to gastro-enteritis.

Teething.—Teething may act in somewhat the same way. Further than admitting that I cannot see what effect teething can have in causing gastro-enteritis.

PROPHYLAXIS.

Breast feeding.—The surest way to prevent the occurrence of gastro-enteritis is to have the child nursed by the mother wherever possible—that is, unless there is strong evidence that breast-feeding would be injurious to the mother or to the child, or both.

Increase Mother's Milk.—Where the supply of breast-milk is poor in quantity or in quality, every effort should be made to increase the supply and better the quality of the mother's milk by careful dieting, and freeing if possible the mother from household worries, etc.

Wet Nurse.—Having carefully attended to the mother's diet and health, we find the child not improving or going back; a careful selection of a suitable wet nurse would be the next best to the mother's breast, but here I fear the supply would not nearly meet the demand, and it is only really when we have to deal with a baby sick from one cause or another that we are able to secure a wet nurse whose baby has also to be considered. Expense is one of the great drawbacks to wet nursing in the majority of cases.

Mixed Feeding.—When the mother nursing her baby finds the strain too great or the baby not thriving, I think a good plan is to allow the child two or three bottles a day preferably of good cow's milk. In these cases I find one of the many artificial foods may be suitable, and only in such a case do I order from choice an artificial food.

Weaning Time.—Should the correct weaning time happen in the worst of the summer months I try to postpone total weaning till the worst of the gastro-enteritis season is over. I have the babies put on to a suitable food, and continue breast-feeding till a more suitable time arrives for total weaning. We so often see a baby (up to the time of depriving it of mother's milk) healthy in every way, and in a few days or weeks come to a serious condition owing to indiscretion in diet, and this I think, might be avoided were we more often to advise this partial weaning.

Artificial Food.—Failing the mother's or wet nurse's milk we must look for a substitute, and I unhesitatingly declare against all patent

foods where it is possible to get a good milk supply that one can be certain of.

Cow's Milk.—A good cow's milk, sterilised and modified to suit the individual child, I look on as the safest and surest means of lessening the amount of gastro-enteritis in children. In our city and suburbs I admit that a sure supply is hard to obtain, but I am just as sure that if proper means could (and they should) be adopted, the infants of the poorer people would have a greater chance of getting through the first year of their lives.

Education Necessary.—As to who should bear the expense of such an undertaking I am not prepared to say, but in time if the people were educated up to the good which would follow such an undertaking the scheme would become self-supporting or even a profitable enterprise. Again in the hottest months I find a useful plan is to lessen the quantity of milk slightly and increase the amount of whatever we use to dilute each bottle.

Bottle Used.—The kind of bottle used and the care bestowed on it is a great help in preventing contamination of the food, for what is the use of sterilising the milk and taking all sorts of elaborate precautions if the food is put into a bottle capable of contaminating it, or if the child draws the milk through a dirty nipple or a dirty tube. I think you will all agree with me that a child fed through one of the old bottles with feet of rubber tubing for the milk to be drawn through runs a terrible risk of being poisoned sooner or later.

Water Boiled.—Again, all water used for diluting the milk should be boiled and carefully stored if not used at once.

Administering Food.—A great deal can be done in instructing the mother as regards the administering of food at regular intervals, in proper quantities, and from thoroughly clean vessels; in the need for the child of fresh air, day and night, and sunshine, whenever possible. The child should be taken out (weather permitting) morning and afternoon. The mother should be instructed in the care of the child's clothing, and especially the bed-clothes, which frequently become soiled by vomiting, and as this is often repeated, the clothes become sour and thus a source of danger to the child's health.

Early Advice.—Early advice should be sought in mild cases of diarrhoea, and my advice to mothers is that if the usual dose of castor oil does not give early relief is to at once consult a medical man.

Disposal of Faeces.—The disposal of faeces or the soiled napkin is important. These

should be at once removed from the child, and either boiled or put with a strong antiseptic and kept there till convenient for the cleansing. Flies are, without doubt, carriers of infection, and they should be rigorously kept from the child and from the foodstuffs.

Treatment of Gastro-enteritis.—I will divide this into dietetic, hygienic and therapeutic.

Diet.—When an infant develops a gastro-enteritis, the first essential in our treatment must be the stopping of all milk or substitutes for milk absolutely for some days. In place of milk or other artificial food, substitute something which requires little or no digestion, such as rice or barley water for the first 24 to 36 hours. If improvement takes place we may add the white of a raw, fresh laid egg to each cup of barley water for the next day or two (this is known as albumen water). Should symptoms now be favourable, we may allow whey, either made from milk by the aid of rennet tablets, or if we think it necessary that the child should have alcohol, a whey made by the aid of sherry and known as white wine-whey, may be allowed for the next couple of days. I find infants take whey very readily for two or three days, and then refuse it entirely. If, at the end of two days on whey as well as albumen water, the infant is still on the mend, the most perplexing part of our problem now arises, viz., the return to milk or substitute for milk. We must hasten very slowly now. The intervals between milk feedings must be long, and the milk very dilute. If on breast, allow a return to breast at four-hourly intervals, and only for a well-defined and limited time. I prefer to commence with milk (sterilised or peptonised), diluted 1 to 8 or even 1 to 12, and only allow three or four such feedings in the 24 hours, and give rice or barley water or albumen water between the milk feedings. If this does not cause any disturbance, increase the number of feedings per day and also the proportion of milk to whatever you may be using to dilute it. With an artificial food, act much in the same way; a limited number of bottles of much weaker strength than when the child is well. Raw beef juice is frequently of great assistance to us in the dieting of a child with gastro-enteritis, as it is frequently readily taken and well retained. This, I find, is best given when the child is very disinclined to take any nourishment at all.

Another preparation I use frequently when the child has persistent vomiting is *raisin tea*, made by splitting raisins once, and cover-

ing with boiling water and let stand half an hour, then squeeze and strain. I frequently find a child retain 1 oz. to 2 ozs. of this liquid every 2 to 3 hours, when the stomach rejects all else.

Hygienic.—A child with gastro-enteritis should not be kept indoors if it is at all possible to have it outside. Even at nights I prefer outdoor treatment in the summer, of course taking the ordinary precautions against sudden changes of temperature. If the child is in a room there should be all the ventilation possible. Cleanliness about the child's clothing should be strictly enforced, and a garment soiled by vomited matter should be at once changed and dealt with as strictly as the soiled napkins; bedclothes the same. The pillows should be protected by some waterproof underneath the pillow-cover. Bathing of the child is necessary at least twice a day, and if the weather is very hot or the child's temperature high I advise bathing at least every four hours. The child should be protected carefully from the flies by means of a mosquito net, care being taken that the net is well away from the child.

Therapeutic.—The treatment by drugs occupies a position of very much less importance than does attention to dietetic measures. If the child has diarrhoea without vomiting, I advise invariably a good dose of castor oil, say 1 to 2 drachms, followed by an emulsion of castor oil containing m. 5 to m. 10 for each dose every three or four hours, with a washing out of the lower bowel, using one to two quarts or more of sterilised warm water, repeated in 12 to 24 hours according to the condition of the patient and the number of stools passing. Should vomiting be present as well as diarrhoea, I prefer commencing treatment with divided doses of hydrag. subchlor. $\frac{1}{4}$ - $\frac{1}{2}$ grain doses every hour for 12 doses, and if vomiting still persists wash out the stomach with sterilised water. The giving of castor oil in these cases I find useless, as it only accentuates the vomiting. Bismuth preparations I find of some use in cases where vomiting persists, but we must be careful in administering bismuth, as in cases where the temperature is high and the motions offensive, I find bismuth preparations harmful. As regards the use of antiseptics in the treatment of gastro-enteritis, I must confess I have had no success, for the bacteria in the intestine cannot be well treated by the diluted antiseptics we must use. Could we use the antiseptics in reasonable strength we might accomplish something, but I fear the strength

of the antiseptics is far below that necessary to accomplish any good result. To sum up the treatment, I find best results in cure as regards diet, good healthy surroundings, and eliminative treatment with drugs, combined with gastric lavage if vomiting and washing out of the bowel, repeated every 12 or 24 hours according to the severity of the diarrhoea.

In conclusion, sum up the capability of the mother as regards taking in your instructions, and if in doubt write out instructions as regards the preparation of food, the intervals, amount, etc., as it is surprising what mistakes are made in carrying out the simplest directions.

(Read before the West Australian Branch of the British Medical Association.)

SOME METHODS USED FOR THE DIAGNOSIS OF DISEASES OF THE URINARY TRACT.

By R. C. Forster, M.B., Ch.M. (Syd.), Sydney.

It is not my intention in this paper to go very fully into each method, as time will not allow me, but rather to draw your attention to some of the means used to determine conditions of the urinary tract, such as I noticed while in Europe.

Some methods call for a special knowledge of physiological chemistry, others for a manipulative proficiency that can only be acquired by long and constant practice. The value of an organ is to be determined from an histological and physiological standpoint. Few, however, advocate the former, but many make use of the latter to determine renal sufficiency. An incision for the determination of the second kidney is useless, because while it may prove the presence of the organ it does not give any information as to its physiological value; again, pathological changes if they exist may not be visible to the naked eye; moreover, the patient should not be subjected to the risks of an incision when there remains surer and safer methods of estimating the value of the kidney. For purposes of description the various methods may be divided into four groups:—

(a) *The usual clinical methods*, such as inspection, palpation, etc.; (b) *Pathological*, such as an incision as mentioned above; (2) *Bacteriological examination of the urine*. (c) *Chemical methods*; (d) *Mechanical methods*. Groups a and b need not be discussed here, so I shall proceed with section c.

Chemical methods.—Measuring the elimination of *nitrogen* as an index of the work done by the kidneys can be performed with Dupres'

method, with which you are all familiar. The question arises, however, is this method of any aid to the surgeon in determining the value of the kidneys, because the elimination of nitrogen depends so much on the diet and tissue metabolism; this is another way of saying that the elimination of nitrogen in the urine depends upon factors which are beyond the control of the ordinary examiner. It has also been proved that even in normal individuals there is a transitory functional disturbance affecting the elimination of nitrogen. It may be stated, shortly, that the determination of the nitrogen output is useless without the determination of the nitrogen intake.

2. *The measuring of the chlorides* may be considered unsatisfactory for the same reason.

3. *An experimental polyuria* has been induced and found unsatisfactory.

4. On the assumption that the kidneys excrete toxic substances, Bouchard tried to estimate the function of those organs by injecting urine into that friend of man—the guinea-pig. Success, however, did not attend his work, because it was found that other factors such as the operative measures and the difference between the osmotic pressure of the urine injected and that of the guinea-pig's blood, caused death apart from the poisonous effects of the urine.

5. *Cryoscopy* or the determination of the *freezing point* of fluids containing certain substances in solution is associated with the name of Koranyi. The chemist here has to discover the freezing point of urine and its relationship to that of the blood. Some workers consider it but another and more complicated way of finding out the specific gravity of the urine and have forsaken it for other methods. In Professor Bier's clinic in Berlin it has been superseded, yet in the same city, Caspar considers it of the utmost value, especially for corroborative purposes. Its importance lies in the comparison of several specimens of the one kidney with several of the other. Clowes notes that there is a constant ratio between the specific gravity and the freezing points of solutions. The presence of sugar and albumen in large amounts makes the tests more difficult. Bearing in mind that there is a direct ratio between the freezing points of a solution and the number of molecules in solution, Caspar considers cryoscopy to be one of the most important methods of determining the solids of the urine, and, therefore, a valuable index of the permeability of the kidneys. The total work of the kidneys

can be estimated with mixed urine, but to compare the value of each kidney the urine must be segregated or the ureters catheterised, and it is then found that the percentage of solids in the urine of one side is markedly less than the percentage of solids on the other, then it is considered to be good evidence of an abnormal renal condition on one side. A properly working kidney helps to regulate the osmotic pressure of the blood; now should the kidney become insufficient, the excrementitious substances accumulate, the osmotic pressure rises and the freezing point falls. Experience shows that if the freezing point of blood falls to 0.6°C. that we have to do with a case of renal insufficiency indicated by the retention of substances in the blood. In health the freezing point of blood is 0.56°C. The more molecules in a solution the lower its freezing point below that of water, and *vice versa*. Take a few cases as example:—Left renal tuberculosis, L.K., 0.64; R.K., 1.04, freezing points; right renal carcinoma, L.K., 1.41; R.K., 0.63, freezing points.

The cases can be multiplied indefinitely. It will be seen that on the affected side the freezing point approaches that of water. From observations it has been formulated that in a diseased and functionally-injured kidney the freezing point of the urine is always *less than* —1, and that an adequately acting kidney is assumed when the urine from it lies between 1 and 2. It will, therefore, be seen that this method has a *prognostic* value, but it has also *diagnostic* value, because in cases of pyelitis and cystitis, if there is no appreciable change in the freezing point of urine, it can be assumed that there is no invasion of the kidney substance by those processes.

In many cases where the molecular concentration of the urine was less than —1 and renal insufficiency diagnosed, proof was forthcoming afterwards by post-mortem examination (Moritz).

Cryoscopy, while it has many advocates and can confirm or refute the findings of other methods, yet has its disadvantages; it takes more time than the average man can give it, and especially cannot one depend on it when it is remembered that the osmotic pressure—and hence the freezing point of the blood—can be altered by such conditions as anæmia, heart and lung disease.

6. *Injection of chemical substances* (such as methylene blue, phloridzin, K.I., carmin ceruleum).—The injection of methylene blue was introduced by Achard in 1897. Many

chemical substances have been exhibited in patients, and the urine after is examined to determine the rate of excretion and thus the condition of the kidneys. A solution of methylene blue is injected subcutaneously or into the muscles and the patient prepared for a cystoscopic examination. After a time the cystoscope shows the dye being ejected into the clear bladder contents like a blue wreath; these ejections are intermittent and not synchronous. Kapsammer, in Vienna, uses carmin ceruleum. It is exhibited by intramuscular injections. While there I used it and never noticed any harmful results or discomfort on the part of the patient. The interior of the bladder is examined as with the methylene blue tests for the coloured urine from the ureters. In the Polyclinic in Vienna it is laid down that if the colour does not appear in 20 minutes, disease can be expected in the kidneys. Achard adopted his methylene blue injection method to test the permeability of the kidney, and found that in normal kidneys the dye appeared in half an hour in the urine and reached its maximum in two hours. It was considered that any retarding of the elimination meant renal insufficiency, but further use showed that while more time elapsed before the dye appeared in cases of interstitial nephritis that the time was shortened in cases of parenchymatous nephritis. Sometimes the reverse held good. In making these tests with methylene blue, the time of the beginning of the excretion, the duration, and the amount were taken into account. I think the methylene blue test is only corroborative, and not solely to be relied upon. The question arises—Does the kidney substance excrete the methylene blue as it would the products of metabolism, or has it a selective choice for it? Again, the methylene blue is often reduced in the tissues and excreted as a chromogen; the blue colour is obtained then by heating and adding acetic acid. I think the carmin test has taken the place of the methylene blue, as I saw it used both in Berlin and Vienna.

7. *The Phloridzin Test.*—This depends upon the fact that injection of phloridzin produces temporary glycosuria. It has been proved that certain diseases retard this glycosuria. While in Vienna I worked in the Polyclinic, where they attach much importance to this method. In the Von Frisch Clinic they hold as a result of experience that they can judge the extent to which a kidney is affected, and whether the prognosis thus formed justifies the removal

of that organ, or, in other words, given two sick kidneys, whether the prognosis is good if one is removed. In this relation it must be borne in mind that it is an accepted fact that disease in the second kidney does not negative extirpation of the first, providing the disease in the second kidney is not too extensive. The methods adopted by Kapsammer are as follows: The phloridzin is injected subcutaneously, the bladder washed out, and the ureters catheterised; the outer ends of the catheters are then left in test tubes which are changed every five minutes, their contents tested for sugar, and the results tabulated. In Berlin they lay importance on the *amount* of sugar excreted. Kapsammer considers the important point to be the *time* after injection when the sugar first appears in the urine. He considers the greater the retardation the worse the prognosis.

D.—*Mechanical Methods.*—1. One method deserves mention on account of its scientific character, but is of no practical importance to the busy worker: I allude to the determination of the electrical conductivity of fluids (urine) of different densities. 2. *Röntgen Rays.*—Surgeons at all times welcome a good shadow picture, and nowhere is it more acceptable than in the surgery of the urinary tract. However, mistakes are sometimes made owing to the presence on the plate of well-marked dark areas, which suggest stones. Of course sometimes stones are shadowed, but the areas to which I allude are proved by the introduction of a ureteric bougie to be along the line and not in the lumen of ureter. The introduction of the ureteric bougie proves two things—firstly, whether the ureter is pervious or otherwise; secondly, the localisation of those dark areas. This is beautifully demonstrated by passing through the bladder into the ureter a specially made bougie; its density casts a deep black shadow and maps out the course of the ureter definitely. In some cases these dark areas, especially when below the pelvic brim, have proved to be phleboliths. In the course of conversation with Hurry Fenwick he laid great stress upon these areas as misleading one in the diagnosis.

3. *The Cystoscope.*—As a result of visits paid to many clinics in Europe and of work done, I have come to the conclusion that the cystoscope has added most to our knowledge of the urinary tract, and that it holds out the greatest possibility for our further advancement. The ordinary simple cystoscope as you know consists of a metal catheter-like

shaft having a bent end—the beak. Into the shaft is inserted an ocular apparatus, and at the end of the beak is placed an incandescent electric lamp. The prism of the ocular part lies in the angle of the shaft with its beak. In one cystoscope the prism lies on the convexity. There are many modifications of these simple cystoscopes and many additions to it, such as is seen in the operating cystoscope, the lithotritic and the uretero cystoscope.

In making a cystoscopic examination one should be as particular as in performing an abdominal section; the patient, the operator's hands and the instruments should be sterilised. The patient's bladder is then washed out till the fluid returns quite clear; the viscus is then filled with a clear antiseptic fluid. By the introduction of the cystoscope one can determine the condition of the interior of the bladder whether it contains foreign bodies, stone or growths, and also can be noticed whether the mucous membrane is inflamed or ulcerated. It is not by purposeless twisting of the instrument that the interior is explored, but every area is in turn examined and pronouncement made as a result of a definite routine. The cystoscope examination does not end with the viewing of the mucous membrane, for adjacent structures often make their impressions on the bladder, such as the prominence caused by an hypertrophied prostate or the rupture of an ovarian dermoid into the viscus, as I myself have seen. Again the picture of the ureteric orifices tell to the practised eye very often the condition of the ureters; for instance, a patulous orifice suggests an atonic and perhaps dilated ureter, or an eroded and inflamed orifice might tell of a descending inflammatory ureteric condition.

Next to the simple cystoscope the uretero cystoscope is a most useful instrument. In structure and principle it is like the simple instrument, but in addition it has a channel through which are introduced the ureteric bougies or catheters. By these means a ureter can be mapped out for an X-ray picture or the ureter catheterised for a separate collection of urine. With the catheter in this position a hydro- or pyo-nephrosis can be tapped and the pelvis washed out.

The segregator affords another method of examination, and also allows the separate collection of urine. There are several makes,

viz., the Harris, the Luis, the Cathelin, and the Neumann. I think the most favoured instrument is the Harris; shortly it consists of a channeled metal bar with two flanges, which is introduced into the bladder, and which drains the separated urine from the lateral diverticula, formed by another bar introduced into the rectum; the second bar forms the water shed between the two diverticula; there are other accessories attached. With the separation of the urine its office ends. On the Continent it has given place to the uretero cystoscope; in fact, I never saw it used once. The segregator is discredited by the fact that it cannot be used if the bladder is contracted or the prostate very large, or a large growth exists, or if the ureters are very close together. However, it is a very useful instrument in determining which kidney is affected, and whether the pathological contents of the urine come from the kidneys or bladder. It also has the merit of being cheaper than a cystoscope and requires less skill in its use.

6. Howard Kelly, of Baltimore, has invented a cystoscope which can be used only in the female. It consists of a speculum and handle; the speculum, with the patient in the lithotomy position, is introduced into the bladder, and by means of rotatory and depressing movements aided by direct vision, the ureteric orifices are found and a catheter inserted.

In conclusion, a surgeon confronted with a surgically diseased kidney has to ask himself these questions:—1. Is there a second kidney present? 2. Is it diseased, and, if so, to what extent? 3. Does the condition of the second kidney negative the removal of the first? Of these important questions two can be answered by methods I have mentioned. The answer to the third must be made by experience, based on clinical work and these methods.

From what has been said in this paper it can be granted that with a carefully weighed history, an examination of the patient, palpation, etc., a cystoscope examination, and, when necessary, the Ph. test, great advances have been made in the diagnosis in the disease of the urinary tract. Different clinics may have different methods, and different methods their shortcomings; but I think enough has been said to draw your attention to the wonderful amount of investigation now bestowed on this branch of our work.

(Read before the Western Medical Association.)

NOTES ON A FATAL CASE OF ARSENICAL POISONING.

By C. H. E. Lawes, M.B., Ch.M., Petersham.

I HAVE thought the following notes worth recording, as being of interest both from a medical and a medico-legal point of view.

I was first called to see Mrs. X., a woman 36 years of age, on the morning of June 4th last. She complained of severe abdominal pains and constant vomiting. She had for some time been a sufferer from rheumatism, and six days before I saw her had started taking some medicine which had been recommended to her husband by a friend. The friend had given the husband the prescription of the medicine, which he said he had taken himself with good results. On examination, I found the patient very tender in the epigastrium, the abdomen hard, tongue dry, pulse and temperature normal. She said she could keep nothing down, and was constantly straining with attempts to have a motion, but without any proper result. She had no other symptoms. I was shown the prescription of the medicine she had been taking, which was as follows:—R. pot. bicarb. dr. vi, liq. arsenicalis dr. i, liq. Donovanii dr. iii, syrup ferri iod. dr. vi, pot. iod. dr. ii, syrup aurant oz. ii, spts. chlorf. dr. iv, decoct. sarsæ. co. ad oz. xii. Sig. oz. i t.d.s. post cib. She had taken one bottle of this mixture and two doses out of a second one—14 doses in all—and had discontinued taking the medicine for about 40 hours when I saw her. I came to the conclusion that she was suffering from arsenical poisoning, and after washing the bowel out with a copious enema, prescribed for the vomiting and pain. I did not wash the stomach out with an antidote, as such a time had elapsed since she ceased taking the medicine and because the arsenical preparations were in liquid form; also her vomiting must have washed the stomach out again and again.

The next day the vomiting had stopped, but she was still very tender in the epigastrium, and now complained of cramps in the calves of the legs with some loss of power. She was given salines, diaphoretics, and diuretics. She had retention of urine, and the catheter had to be passed from now on to the end of her illness. As her condition was getting worse I had her moved on the 7th of June to the Marrickville Cottage Hospital, where I continued to treat her. Within a week from the time of my first seeing her there

was complete paralysis of the lower limbs, with foot-drop and diminished knee-jerks. In a few days more there was almost complete paralysis of the arms, with wrist-drop and inability to move the body. She could swallow, but could not lift her head. She had perfect control of the bowels, which were kept moved daily. The urine was acid, sp. gr. 1025, no albumen; it was not tested for arsenic. As her illness advanced she became subject to crises of intense suffering from time to time, complaining of intense pain, burning sensations, and feelings of contractions, with hyperæsthesia, evidently sensory symptoms. She now presented most of the symptoms of marked peripheral neuritis. After some time her condition began to improve, and on July 12th she was discharged from hospital at her own request, as she was very anxious to go home. At this time her condition was as follows: She could move her legs and arms and body well, though she could not stand; had not so much pain, but still was unable to pass water. Her knee-jerks, which had previously been much diminished, were now, if anything, a little exaggerated. After returning home the crises of severe pain recurred and became more severe than before. A bed-sore began to develop, over the sacrum, and the temperature and pulse-rate rose above normal, which they had not done before. The knee-jerks became more exaggerated. From this time she began to go down hill, the bed-sore spread rapidly in spite of treatment, the temperature and pulse-rate became higher, and the reflexes exaggerated. Dr. Purser saw her with me on July 24th, and we decided to send her to the Royal Prince Alfred Hospital, and this was done on the following day. Dr. Purser informs me that she steadily got worse there and died on August 3rd, about 9½ weeks after she started to take the arsenic mixture.

Dr. Palmer made a post-mortem examination, and tells me he found nothing definite, and an examination of the viscera by the Government Analyst showed no traces of arsenic. This is, of course, as one would expect after such a lapse of time. Unfortunately, the spinal cord was not examined.

There are several points of interest in connection with this case:—

1. The length of time which elapsed between the taking of the drug and the fatal issue, namely, 9½ weeks. During this time all arsenic had been eliminated from the system.

2. The alteration in the nerve symptoms. At first the symptoms were undoubtedly those of peripheral neuritis, but in the later stages pointed to spinal cord mischief, presumably some degenerative change in the pyramidal tracts. I have never seen this sequence of events before, and have not found any cases recorded quite like it.

3. *The fatal dose.*—The patient took 14 doses of the mixture, each dose containing 5 minims of liquor arsenicalis and 15 minims of liquor Donovanii. That is to say, she took in all 70 minims of liquor arsenicalis and 210 minims of liquor Donovanii (which contained respectively $\frac{1}{12}$ of white arsenic and $1\frac{1}{2}$ of arsenious iodide) in four and a half days. In all she took of arsenic in one form or other $2\frac{1}{12}$ grains.

There is a case recorded in Taylor's Medical Jurisprudence of a woman taking half an ounce of liquor arsenicalis (equal to 2 $\frac{1}{2}$ gr. of white arsenic) during five days, and dying. In another case 2 $\frac{1}{2}$ gr. of white arsenic killed a girl of 19 years in 36 hours.

4. *The legal responsibility.*—I think there is no doubt this rests with the chemists who made up the prescription. It was an Exemplum, unsigned and undated, and, in my opinion, should never have been made up. The first bottle was made up at a large pharmacy in the city, and the husband stated at the inquest that he asked the person who handed him the bottle if the medicine was safe to take, as he knew there was some arsenic in it, and he was told it was perfectly safe. So he not only was not warned of the danger, but actually had any misgivings he might have felt allayed. The second bottle was made up at a suburban pharmacy, and the chemist there first rang up the city pharmacy, and when he found they had made it up, he did so also.

The Coroner's finding was as follows:—"That death was due to arsenical poisoning, caused through taking doses of medicine containing larger quantities of arsenic to the dose than could safely be taken." He added that "chemists should be more careful in making up prescriptions which contained poison of any kind, especially in dangerous doses."

If the police take no further action in the matter, I think the Branch ought to bring this case under the notice of the Pharmacy Board of New South Wales.

NOTE.—Since writing the above notes, one of the chemists mentioned was charged at the Newtown Police Court with a breach of the

Poisons Act, but the magistrate dismissed the charge on the grounds "that the preparation made up by defendant from the prescription was not a poison as set out in the first part of the second schedule of the Act."

(Read before the New South Wales Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTES.

CASE OF CEREBRAL HÆMORRHAGE AFTER BLOW WITH A CRICKET BALL.

A boy, ten years of age, was watching a cricket match when he was struck by a cricket ball on the right parietal region. He was caught as he was falling, and remembers having his head bathed so that he could hardly have been unconscious more than a few minutes. He vomited during the night several times and had slight headache for a day or two, but up to the sixth day there was no slowing of the pulse or any other outward symptom; in fact, he felt quite well. He was forced by his medical attendant to remain in bed, however. On the sixth night he had convulsion after convulsion, with left-sided hemiplegia. I saw him during the night, about two o'clock; he was unconscious and twitching freely down the left side. There was no sign of injury where he had been struck, nor had there been anything beyond a slight redness for the first day or so. I trephined over the injured area and chipped away sufficient bone to enable me to remove about a dessertspoonful of black clot from beneath the meninges. The wound was closed. The lad had several slight convulsions after this, and the paralysis cleared up the next day. His pulse varied from 70 to 98, and his temperature was normal. There was a certain amount of discharge of cerebro-spinal fluid for about a month. During the second week he had slight convulsive seizures, with slight loss of power on the left side. A month after the operation he had a series of convulsive attacks, beginning on the left side, though the few days before this he appeared to be quite well. At this time, too, the wound began to bulge as if he had a cerebral hernia, and was about as large as half a hen's egg. At the end of three months the nurse states that the swelling went down altogether and comparatively suddenly. I saw the child the other day, now about five months after the injury, and he is quite well. I think that the swelling was probably more after the style of a meningocele, and that the

communicating opening closed by shrinkage. I forgot to remark that I found absolutely no sign of fracture, though I looked for it carefully at the time. I think that one of the chief lessons to be learnt from this case is that we should never fail to impress on patients the necessity for keeping the injured individual absolutely quiet for at least a week. These apparently simple cases should never be treated lightly. I am indebted for these notes to Dr. Elworthy, under whose care the patient was.

H. CRITCHLEY HINDER.
M.B., Ch.M., Sydney.

EXTRA-UTERINE TUMOUR IN A PREGNANT WOMAN—A BACK-BLOCKS OPERATION.

MRS. W., *æt.* 30, wife of a teamster, living at Tiboburra, the queen city of the "Never Never" country in the far west of N.S.W., had had pain in her right hip for some 18 months. Her youngest child was three years old. Besides the pain she had become thin and short-winded. Her temperature was above normal. Through the thin abdominal walls a tumour could be felt, filling the right iliac region, and there was some ascites. Her condition being serious from loss of strength, an operation was done, and there being no other doctor available a nurse from Miss Hill's hospital, Adelaide, gave ether 'with Clover's inhaler. There were few adhesions, and the tumour, the size of a cricket ball, was easily delivered through the incision in the mid line, its broad pedicle ligatured, and the tumour, which was afterwards found to contain blood-clot, removed. The incision was closed, but a blood abscess had to be opened afterwards and some of the silk ligatures sloughed away. Three days after the operation a quantity of "water" gushed away from the vagina, followed by a sanious discharge. The uterus was then emptied of its contents, there being a 3½ months' foetus. The patient got well and distinguished herself by winning a woman's race in some Tiboburra sports some six months after the operation, and she has only recently—about two years since the operation—born a healthy child.

J. MACBAIN ROSS,
M.R.C.S. (Eng.), L.R.C.P. (Lond.).

A Windfall.—The New Town (Tasmania) Charitable Institution has received a gift from the New Town Library trustees and committee of 995 volumes. This generous gift to a deserving institution has been suitably acknowledged by the Chief Secretary's department.

REVIEW AND NOTICES OF BOOKS.

THE CAUSE AND PREVENTION OF BERI BERI. By W. L. Braddon, M.B., B.S., F.R.C.S., State Surgeon, Negri Sembilan, Federated Malay States. London: Rebman Limited. Sydney: E. J. Forbes, 8 Spring-street. 1907.

A work in which the writer claims to have solved a problem which has vexed medicine for centuries demands something more than a passing notice, and consequently we turn with interest to this volume to see to what conclusions as to the cause of beri beri have been reached by Dr. Braddon, and the arguments upon which such conclusions are founded. The book, which reaches nearly 600 pages, consists chiefly of a report presented to the Colonial Office in May, 1904, and certain facts and observations gleaned later from other authors, or more recent works have been interpolated in the text or added in the appendix. The author asserts that he has omitted what are merely opinions and has presented only ascertained facts before the reader.

The thesis he sets to work to prove is that beri beri is a grain intoxication, and while rice is in the largest proportion of cases the medium for the conveyance of the poison, yet other grains may become infected and produce the disease; that frequently where there may appear to be no connection between the disease and the use of rice, yet the latter may really be consumed as an adulterant of arrowroot, flour, glucose, etc. He points out that beri beri does not occur where there is not a rice diet; that in epidemics of beri beri and in places where it is endemic rice-eaters only are attacked; those who eat no rice escape.

He draws the following inferences from a mass of evidence collected from various sources:—1. Stale rice occasionally contains a poison which produces beri beri. 2. The agent which produces this poison is peculiar to that grain. 3. The poison is not endogenous in normal fresh seeds, but is adventitious. 4. The pericarp of rice when fresh contains little or no poison, poison arising only after decortication. 5. Therefore the formation of poison is due to the action of a specific agent on the dead seed. 6. The agent must be some ferment or parasite or epiphyte peculiar to rice. 7. The beri beri poison is a stable and non-volatile alkaloid resembling atropine and muscarine in its effects. 8. The formation of poison in stale rice is probably due neither to fermentation nor to bacteria, but to the growth in it of a special fungus. 9. The fungus of rice which produces beri beri is probably a surface parasite or epiphyte affecting the seed saprophytically after decortication. 10. The specific fungus of beri beri rice is, like that of toxic rye and lolium, probably a parasite affecting the surface of the seed.

Having elaborated this etiology, Dr. Braddon proceeds to deal with certain objections which have been raised to this theory, and to deal with reputed epidemics of "Beri Beri" in temperate latitudes, and also ship "Beri Beri." As these epidemics cannot be made to fit in very easily with the theory, he disposes of them by casting doubt on the diagnosis, and asserting that while these cases may present a certain resemblance to beri beri, they are yet wanting in some of the essential features of this disease. Ship Beri Beri he believes to be a peripheral neuritis depending upon some intoxication from tinned foods, and the epidemics which have occurred at the Richmond Asylum in Dublin and other institutions elsewhere have not been proved to be true beri beri; and in support of this contention he quotes the opinions of some neurologists

as to the variety of the causal factors in peripheral neuritis. This is true enough, but all it goes to show is that under the name *Beri Beri* possibly several different intoxications are included; and we cannot see that it strengthens the author's case. The fact—and Dr. Braddon tells us he deals with facts—remains that epidemics of disease which he himself admits resembles a modified form of *beri beri* have occurred under conditions where the consumption of infected rice as an etiological factor could be excluded. All that his arguments now go to prove is that a disease characterised by certain general symptoms and followed by peripheral neuritis, which is endemic and epidemic in tropical climates, which is called *Beri Beri*, can be definitely traced to an infection from eating rice which contains some poison of an alkaloidal nature, and from the evidence which he adduces we should consider he has proved his case. He has further proved that under the term *Beri Beri* are included other intoxications of a similar character which have a variable etiology and should be differently classified.

The volume is extremely interesting and well written, and we have no doubt that the practical conclusions drawn must result in the abatement of epidemics and a great diminution in the mortality from this disease.

CLINICAL EXAMINATION AND TREATMENT OF SICK CHILDREN. By John Thomson, M.D., Physician to the Royal Edinburgh Hospital for Sick Children, Joint-Lecturer on the Diseases of Children in the University of Edinburgh. Second edition. Edinburgh and London: William Green & Sons. Sydney: Angus & Robertson.

It is now a good many years since the first edition of this admirable volume was published. The issue now before us is practically a new book. It has been rewritten and greatly enlarged.

The profession is already under no small debt to the translator of Henoch's Classical Treatise on Disease in Children, and to the practical help which Dr. Thomson has given to a better knowledge of pædiatrics by his various contributions to that subject. By this manual we stand still more in his debt. The work is not intended to replace an ordinary text-book in clinical medicine, nor does it aim at an exhaustive treatment of either diagnosis or therapy, but it gathers together in a moderate compass the salient points of disease in childhood, and likewise a vast amount of interesting useful facts, and the explanations of these facts, which are not found in ordinary text-books and are rather of the folk-lore of medicine.

This book, indeed, does for disease in children what Dr. Purves Stewart's recently did for neurology in his admirable book on the Diagnosis of Nervous Disease. This is high praise, but Dr. Thomson's performance merits it.

Photography has been very extensively used throughout, and with marked success. A student now has thereby advantages in learning to recognise disease which were unknown as late as 20 years ago. Excellent and convincing as nearly all these photographs are, we must, however, insist that there are some aspects of disease which only the hand of the artist or perhaps coloured photography can portray. Take the photograph on page 9, a child with pleuro-pneumonia. The writer looks at it with the label beneath it, and sees the dark shading representing the flushed cheek, but truly he acknowledges that without already being prepared to see the facies of pneumonia, he would have difficulty in identifying the malady from the photograph. Nor does the post crisis picture as a contrast prove very

useful. Pneumonia requires colour to convey the true facies of the disease into one's mind. Again in the photograph of chloroma at page 224 the lack of colouring is to be regretted. The disease is so rare, and the case figured was evidently so marked a one, that the reader cannot avoid the wish that it had a more life-like presentment in these very instructive pages.

The chapter on physiognomy is most useful, and in the writer's judgment the descriptions are absolutely true to life.

This is a work which will be found of value to the experienced physician, as well as to the young man beginning practice. To the former all sorts of practical knowledge, not usually the common possession of the practitioner, are to be found; while to the junior the teaching is plain, simple and full of common sense. Indeed the three last chapters on infant feeding, nursery hygiene, and therapeutics contain more sensible advice on the subject in smaller compass than is usually found in many large treatises. In the preparation of milk one would have liked to have heard Dr. Thomson's experience of the use of curdled milk after the method of Metchnikoff.

Taking it all round this latest addition to the literature of disease in children fully sustains the author's reputation, and bears evidence of great practical experience in his branch of medicine. Those who had learned to value the first and smaller edition of this work will find the one under review of still greater value.

DISEASES OF THE NERVOUS SYSTEM. Translated from the German under the supervision of J. L. Salinger, M.D., and edited by Professor Archibald Church, M.D. 1205 pages, with 195 illustrations and five coloured plates. New York: Appleton & Co. Sydney: Angus & Robertson, Ltd. Price, 28s (postage, 1s 9d).

We have no hesitation in saying we consider this the best modern text-book on diseases of the nervous system. It is not the work of one writer, but a compilation of articles, which embrace the whole field of neurology written by experts. For the English reader to have available the opinions and teachings of the leading German neurologists is of itself a matter of congratulation, and we find among the contributors such well-known men as Erb of Heidelberg, Redlich of Vienna, Wernicke of Breslau, Quincke of Kiel,¹ v. Leyden and Lazarus of Berlin, Schultze of Berne, etc. These articles, moreover, embrace references to the work of neurologists in all parts of the world, so that we get a really comprehensive account of the subjects.

We would refer specially to the articles on modern aids in the diagnosis of disease of the brain by Redlich, and on lumbar puncture by Quincke, as being well written and up-to-date, and conveying information not to be found in any other text-book of neurology.

A striking feature in some of the articles is the amount of space devoted to treatment. It is too commonly believed that the study of neurology consists in abstruse questions of diagnosis and that treatment is practically nil. A careful study of this volume should serve to dispel that idea. As we understand that no new edition of Gower's Manual of Diseases of the Nervous System is in preparation, we would commend this volume as the best modern substitute.

Dr. T. G. Wilson, of Adelaide, has been appointed an honorary commissioner to enquire into the construction and the working of hospitals in the United States of America, and left by the R.M.S. "Orontes" for London.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH OCTOBER, 1908.

MEDICAL EDUCATION.

ONE of the most interesting and important of the discussions held at the recent meeting of the British Medical Association at Sheffield was that in the section of Physiology on the "Scientific Education of the Medical Students." This discussion, in which several prominent scientific men took part, was specially appropriate in view of the recent alteration in the University of London syllabus for the preliminary training of medical students, in which an attempt is made to have all the teaching in the preliminary scientific subjects specially directed to the actual needs of the students in the later period of their career; or, in other words, the preliminary training in science is to be strictly utilitarian. The necessity for this, it is urged, is the great increase in knowledge nowadays, and the impossibility of the student in the ordinary period of study of overtaking the ground unless some such restriction or curtailment of the preliminary scientific training is secured.

While all the speakers were pretty well agreed on the necessity for some reduction in the amount of scientific knowledge required of the medical student, there was some diversity of views as to how this could be best attained. The preliminary scientific training must be considered from two points of view. First of all it must be remembered that the practice of medicine is becoming more and more scientific. The practitioner is brought face to face with scientific problems which demand solution, and only one who has been scientifically trained can successfully grapple with those problems and be a

successful practitioner—not from the point of view of money making, but of doing most good for his patients. Now, if this be true, it is clear that the early training of the medical practitioner should be in the way of a scientific habit of mind. He should be trained to observe and to draw accurate conclusions from his observations and experiments, and then later when he is confronted with the problem of disease he will be able to observe more accurately and formulate his conclusions with greater certainty. From this point of view the medical student should be trained by scientific men in their own particular departments, who will be able to inspire the students with the true spirit of scientific inquiry.

But we have the other side of the question, and that is that for the adequate understanding of the principles of physiology, pathology, bacteriology, etc., a knowledge of the preliminary sciences, such as biology, physics and chemistry, is necessary; and it has been urged that if the student is taught only so much of these sciences as is absolutely necessary for him to understand the physiology and pathology of man, that is all that can be expected of him in the limited time allowed in his student's course. Now, science which is taught purely from the utilitarian point of view will, in our opinion, never help a student towards correct habits of observation and reasoning, and so the attempt has been made to retain the strictly scientific character of the early training, but to adapt the problems presented to the student in this part of his course specially to his subsequent study of man. To do this would require teachers specially trained themselves, and no doubt if the demand occurs such persons would be forthcoming. But in the meantime we feel sure that the successful practitioner must be trained in his early days in the true spirit of scientific inquiry, and such a spirit can only

be imparted by teachers expert in their own particular line of study.

To assist in securing these same ends there should be no examination in the preliminary sciences. The student should be supervised in his work, which should be largely experimental. He should not be expected to stuff his head with facts of no particular use to him, but his eyes, ears and hands should be trained, and his brain allowed to develop the habit of accurate thought and logical conclusion; then the student would come to his later studies not overtired and brain-weary, as Professor STARLING maintains he does now, but well fitted for his later work in the more advanced studies of physiology and pathology, and for his observation and examination of patients in the hospital wards.

QUACKS AND QUACKERY IN NEW SOUTH WALES.

RARELY has there been heard from the Judicial Bench such a scathing indictment as that pronounced by Mr. Justice COHEN in the New South Wales Supreme Court on the occasion of his summing up in a case in which a firm of medical specialists, well known by their advertisements throughout Australasia, were sued for damages for unskilful treatment by a patient. The full text of this remarkable speech appears in another column, and it has served once again to draw the attention of the general public to institutions of this kind, which the learned Judge pronounced to be "reeking with wickedness." The case which called forth this comment was not a particularly glaring one, and many worse ones which have never come to open publicity are known to medical practitioners; but it serves to illustrate well the plan adopted by the "medical specialist," who knows that the greatest impression can be made upon an ignorant young man by the suggestion of

sexual impotence and the dangers which may result therefrom.

But these are no new revelations even in Sydney. Several years ago, at the instance of the Hon. Dr. CREED, a Royal Commission was appointed to investigate the whole question, and an elaborate report was issued, which shared the fate of so many reports of Royal Commissions which happen to reveal an unsavoury state of things which a Government for various reasons may be indisposed to tackle. This report showed that at that time there were two or three "institutions" of "medical specialists" which were also being run by the same enterprising American, and which adopted precisely the same tactics as those revealed in the recent Supreme Court case. The same style of serial letters, the same importunity, the same demand for money for "special" treatment were exhibited, and yet no further notice was taken of their documents, and the "eminent specialists" of various names have been allowed to pursue their calling unmolested.

A few months ago, however, as the result of the action of the Federal Postmaster-General, taken under the powers conferred upon him by the Postal Act, any correspondence addressed to the "Freeman and Wallace Institute" was not allowed to be delivered to them, and this regulation must have seriously interfered with their business. But these are not the only "medical specialists" in New South Wales, and it is imperative that the same drastic action should be taken against others who are equally well known.

Still quacks and quackery will flourish as they have in the past unless other means are taken to prevent their nefarious practices. A series of articles which have been appearing in the *British Medical Journal* on the composition of some secret remedies have revealed the grossly fraudulent practices of the quack

medicine manufacturers and vendors, and the more arrogant the assertions made with regard to the value of the secret remedy, the greater the worthlessness of it from the therapeutic point of view, and the greater the price demanded for it. These articles entirely bear out Mr. BEALE'S conclusions in his report, and the sooner action is taken by the Federal Government on that report, and the sooner the New South Wales Government takes the promised action to deal with "medical institutes," the better it will be for the general public of Australia.

THE MONTH.

The Early Treatment of Mental Diseases in Sydney.

We have been requested by the Inspector-General of the Insane to draw the attention of our readers to a new ward for the treatment of mental cases which has been opened in the proximity of the Reception House for the Insane, Darlinghurst. This ward represents a distinct advance in the facilities offered for the early treatment of insanity, in that patients can be sent there without certificates or other legal formality. In fact the ward is, as regards the medical profession and the patients, on the same footing as if it were a part of one of the large general hospitals. At present only male patients can be received, the space on the site being too limited to permit of a building large enough for both sexes being erected. In regard to the medical staff, a departure from the usual methods of hospitals for the insane has also been made by the appointment of honorary visiting physicians, and as there is at present no resident or house physician the patients are directly in their care. We understand the names of the present honorary staff are Dr. G. E. Rennie, Dr. Chisholm Ross, and Dr. A. Davidson.

The Tuberculosis Problem.

In the course of an address at the annual supper of the Melbourne Medical Association recently, Dr. Nattrass, the retiring president, dealt with the problem of the prevention of tuberculosis. "From 1901 to 1906 (inclusive) no fewer than 7959 persons died of pulmonary tuberculosis in Victoria. In addition

to this, the bacillus claimed in other forms of disease an average of 349 per year for those years. In a young country such as this, where population was so urgently needed, it seemed an appalling thing that a disease so amenable to treatment as tuberculosis should cause such a heavy drain on the population." After referring to the efforts made to cure the early cases of pulmonary tuberculosis at the sanatoria, he said that "in order to successfully deal with the scourge they must effectively segregate the advanced cases; the source of origin or supply must be cut off. If they contented themselves with treating early cases only it would follow as a natural consequence that they would always have plenty of early ones to care for. If they isolated the advanced cases, fewer people would become infected, and the natural result would be the diminution of the disease." This view of the problem was specially before the recent municipal conference in Melbourne, and that body has recommended that an additional 200 beds be provided for advanced cases of that disease. There is a great deal to be said in favour of the provision for advanced cases as the first step in the eradication of pulmonary tuberculosis; but the further question arises—How are we to compel cases of advanced pulmonary tuberculosis to enter homes or hospitals which may be provided for them by the Government or municipal enterprise? This is a most vital point for consideration. We segregate lepers, we quarantine smallpox and plague patients, and by similar health regulations the advanced consumptive might be segregated. If the prevention of tuberculosis is to be seriously tackled it seems that some such provision must be insisted upon, and although it may entail hardship on some individuals, it will be for the benefit of the great bulk of the population.

State Registration of Trained Nurses.

A deputation from the Australasian Trained Nurses' Association waited on the New South Wales Chief Secretary to urge upon the Government the necessity for the introduction of a bill into Parliament to secure State control over the nursing profession. It was urged that at present there was nothing to hinder any woman however ignorant or incompetent she might be from putting up a brass plate with "Nurse" on it. And it was considered now high time that control should be exercised, and that the

public should thus have the means of knowing who were trained nurses and who were not. In replying to the representations of the deputation Mr. Wood said he fully agreed with their objects; but as there were people now earning their livings who would be affected by this bill he must lay it before the Cabinet before he promised anything. They had to be careful that no association or section of a profession secured by legislation privileges which might put them in a better position than other people. Secondly, he had noticed a suggestion that the giving of certificates was to be in the hands of a somewhat miscellaneous body of outside persons. He had not any fear of there being unqualified people on the board; but if they wanted the matter taken up by the State they would have to be prepared to let the State have a fair say on this controlling body, because the people expected it. Thirdly, their standard was very perfect; in the inland portions of the State it could not be so high. It would have to be elastic. He would put the matter before the Cabinet at an early date. These remarks must commend themselves, and we think that registration of nurses by a board on which the State is fully represented is preferable to registration by an independent and uncontrolled body.

Suggested Amendment of the Tasmanian Medical Act.

The Tasmanian Medical Act was passed in the year 1842, before the State had responsible government, and since that time it has only been amended in one small particular—relating to the sale of drugs. It is not surprising, therefore, that a demand should be made for an amending bill to bring the Act up to date. But the immediate cause for the demand was the recent refusal of the Court of Medical Examiners in Hobart to register a Dr Gould, a homœopathic practitioner, whose only qualification was M.D. of Boston. The refusal of the Medical Court to register him was upheld by the Full Court, and the medical gentleman, we are informed, has left the State. In reply to a deputation which waited upon him in the interest of the Hobart Homœopathic Hospital, the Premier said "the Government felt that it was necessary that such an obsolete Act should be amended, and that its provisions should be expressed clearer, and with more definiteness. It was only at times like this that ancient Acts were "shown up," and whenever they were brought under the notice of the Government they

would be brought up to date. It was a matter which must not be passed by hurriedly. The question was what way was the best to deal with an amendment of the Act. He thought that the best they could do would be to adopt whatever the central medical authority in England recognised as sufficient qualification. That should be sufficient here." It is specially necessary in any amendment of the Medical Act to be introduced that the five years' course of study must be recognised as a minimum period, and no qualification obtained on a shorter course should be registrable. The principle of reciprocity with foreign countries should also be secured.

Building Reform.

In the course of a lecture on "Building in Relation to Health," under the auspices of the Australian Health Society of Melbourne, Mr. Haddon, F.R.I.B.A., remarked that in the city of Melbourne and in the surrounding municipalities a revision of the building laws was at the present moment a question of imperative urgency, and an effort was being made by the various councils to bring into force improved building by-laws. In the framing of these new regulations, and in the work of the Board of Health and other bodies whose work was directed towards raising the general building standard, the public should take added interest, so that even and equable progress might be made towards the making and maintaining of a healthy public standard of building. From a wide experience, it was not too much to say that 80 per cent. of suburban houses were badly orientated. "Think of the great glass window bays, that rendered the western rooms veritable hot houses; eastern windows without shelter, wherein sleep was impossible in summer time after four or five o'clock in the morning; pantries facing the fierceness of the north wind and dust, rendering the butter oil and the provisions unkeepable, and bathrooms that were hottest in summer and coldest in winter." If radical treatment did not as it could not, alter the weather, it might at least aid in supplying those resisting qualities that were necessary towards helping the people to carry the burden of the days. These remarks, though dealing with the condition of affairs in Melbourne, are equally applicable to other cities and towns in Australia. But though the objections are recognised, it is difficult to see how they can be remedied.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A CLINICAL evening was held on Friday, September 11th, 1908, at the Royal Society's Room; Dr. Abbott (president) in the chair. There were 45 members present.

Dr. F. G. CAMPBELL read a report on a case of dislocation of shoulder with fracture of humerus.

Dr. FLASHMAN, for Drs. Hinder, Pridham and Flashman, reported on a series of microscopic sections of appendicitis.

Dr. MACDONALD GILL reported a case of posterior sclerosis of the spinal cord.

Dr. C. LAWES read a report on a fatal case of arsenical poisoning.

Dr. H. H. BULLMORE read a report on a case of splenomegic polycythemia.

Dr. BARRINGTON reported on a case of dermoid tumour.

Dr. MACDONALD GILL reported a case of cancer of the sigmoid, diagnosed by sigmoidoscope.

Dr. CHARLES MACLAURIN read a report on a case of endothelioma of neck.

Dr. P. FIASCHI reported on Frankenstein's method of preventing post-operative retention of urine.

Dr. P. FIASCHI reported on a case of well-marked cervical rib.

A discussion ensued, in which Drs. Sheldon, Palmer, Worrall, P. Fiaschi, Charles MacLaurin, T. G. Campbell, Sinclair Gillies, Corlette took part, and Drs. F. G. Campbell, Flashman, Macdonald Gill, C. Lawes replied.

A meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on September 25th; the President, Dr. G. H. Abbott, in the chair. There were about 40 members present.

The President announced the election of the following members:—Dr. E. J. Day, Nyngan; Dr. R. N. Wawn, Sydney; Dr. Mary Booth, Sydney; and the nomination for membership of Dr. L. B. H. Conroy, Crookwell; Dr. A. Oxley Wilson, Sydney; Dr. Elsie F. Browne, Sydney; Dr. James Kearney, Parramatta; Dr. Josiah Corlis, Bangalow; Dr. Charles C. Corlis, Bangalow; Dr. H. C. E. Donovan, Ballina.

It was unanimously agreed to nominate Dr. F. A. Pockley for election as president of the next Congress to be held in Sydney.

Dr. PALMER, hon. secretary, moved the adoption of the special report on the Private Hospitals Bill at present before Parliament. The report was as follows:

PRIVATE HOSPITALS BILL.

Report of the Council of the New South Wales Branch of the British Medical Association.

In the opinion of the New South Wales Branch of the British Medical Association Council, the proposed Act to provide for the regulation and inspection of private hospitals, if passed into law, will be productive of grave injury to the community. In introducing the bill, Dr. Mackellar stated: "It would not interfere with the registration of nurses by the Australasian Trained Nurses' Association, nor with legitimate private hospitals." The bill, as it left the Legislative Council, is not in accord with this statement. The register of nurses to be kept by the Board of Health will render nurses quite independent of the Australasian

Trained Nurses' Association, and this will destroy an institution which has done so much to raise the standard of character and competency in the nursing profession, to the great advantage of the public. Under this bill the reliability of nurses will rest on a much less safe foundation.

With regard to private hospitals, these institutions are essential to modern surgical treatment, and in a lesser degree to medical treatment. There are many excellent establishments of the kind in New South Wales, conducted by women of high character and ability, who in most instances have invested the whole of their hard earned savings in the enterprise. These women are carrying on a work of great public utility, and are deserving of commendation and support. Under the bill they will be harassed and impeded to a degree which will make it difficult, and, indeed, impossible for them to pursue their work successfully.

Clauses 11, 12, and 13 will place private hospitals under such a cloud in the eyes of the public that it will be extremely difficult to induce patients to enter them for necessary operations, and thus lives will undoubtedly be sacrificed.

Most people naturally shrink from publicity with regard to their ailments, and have hitherto felt safeguarded in this respect by a knowledge of the reticence which the ethics of their profession imposes on doctors and nurses. Under clause 11, any disease which the Board of Health chooses to proclaim must be at once notified, however private the disease or however innocently it may have been contracted.

Under clause 12, every respectable married woman who suffers from a miscarriage spontaneously occurring, and who enters a private hospital for its treatment, will have to undergo the shame and indignity of having the matter reported, and an enquiry made by an outside authority.

Every unmarried woman who has had the misfortune to become pregnant, and who is threatened with a spontaneous miscarriage, and in consequence has become so dangerously ill that a serious operation is necessary, will be prevented by her over-mastering desire to hide her shame from entering a private hospital, and thereby giving herself what is probably the best chance of saving her life.

Under clause 13, in order to make the publicity as wide as possible, the all-embracing power is given the Board of Health to force the manager of a private hospital to furnish "such other particulars as may be prescribed." Under such circumstances can it be doubted that a highly deterrent effect to patients entering private hospitals will be exercised by the bill.

At present ordinary private hospitals have to compete against the private wards of certain hospitals supported by public subscription, such as St. Vincent's and Lewisham. It is reported that these hospitals are to be exempt from the provisions of the bill. They will thereby obtain a most unfair advantage over other private hospitals carried on by hard-working nurses.

It may be also pointed out that illness and events which in private hospitals are notifiable as above may take place in private houses and lodgings taken for the purpose without any such publicity. It may further be noted that the publicity which under this Act will be required in the case of private hospitals is not demanded of patients in public hospitals. If it has not been found necessary in the case of public hospitals, why should respectable private hospitals be hampered by these conditions?

Clause 18 makes all preceding clauses unnecessary, in so much as it gives power to the Board of Health

to frame "any regulations it thinks fit for the licensing, management, and inspection of private hospitals," and it may actually impose a fine of fifty pounds. This clause, it is considered, would give to the Board of Health unlimited power which might be too far-reaching in its effect.

In conclusion, the Council desires to point out that no allegation of improper practices has ever been made against the legitimate private hospitals of New South Wales, which, in the words of Mr. Fosbery, during the debate in the Legislative Council, "are not only a benefit but an absolute boon to the community," and, it might also be added, are often the means by which persons with scanty income are enabled to obtain treatment which they could not provide or afford in their own homes.

In the opinion of the Council of the New South Wales Branch of the British Medical Association, the ostensible object of the bill could be attained by a few clauses, providing for the inspection of *all* private hospitals, and the adequate punishment of the proprietors of those carried on for improper purposes.

It may be pointed out that Dr. Mackellar, in his introduction of the bill, stated the private hospitals conducted for illegal purposes were known to the police. The Council of the New South Wales Branch of the British Medical Association desires to emphasise this by the expression of opinion that it is absolutely impossible for a private hospital to be conducted for legitimate or illegitimate purposes without the fact becoming known.

G. H. ABBOTT,
President.

17th September, 1908.

Dr. T. FIASCHI said that so far as the bill was concerned with the registration of nurses he was opposed to it, but he did not think that the Association should take up a hostile attitude to the bill as a whole.

Dr. SINCLAIR GILLIES said that he and others had given evidence before the Select Committee of the House some six months ago, and they all agreed with the necessity for inspection of private hospitals with a view to putting a stop to criminal procedures, and Dr. Mackellar was disposed to fall in with their views. He thought that before passing any resolution condemning the bill the Council should see Dr. Mackellar officially and place before him their views on the clauses to which they took exception.

Dr. BRADY said it was too late to do that now. The bill had passed the Legislative Council and was at present before the Legislative Assembly, and if no action be taken now it would be too late. The parts of the bill to which they took exception were those which interfered with the relation between doctor and patient, and which would tend to a breach of that professional confidence which they had all to respect. Further, reputable private hospitals should not be placed on the same level and subjected to the same treatment as institutions which were known to be carried on for criminal purposes.

The Hon. Dr. NASH said that when the bill was before the Upper House he, as well as his medical colleagues there, were in a false position, as they did not know what the views of the profession were. The bill as passed in the Upper House was considerably modified, but the bill was still Dr. Mackellar's, and would be introduced into the Legislative Assembly by a private member, and any amendments which were desired could still be introduced by the member in charge of the bill in the Lower House. All were agreed that inspection of private hospitals was a necessity, and it was difficult to distinguish the criminal from other

institutions. Penalties were made for those who broke the law, not for those who kept to their ethical standard. He was opposed to the practice of letting anyone know what was the matter with a patient he sent to a private hospital. No nurse or manager of a hospital had any right to know what the patient was suffering from. The bill was supported on broad grounds, not as a perfect measure, but as an instalment towards what they all felt was necessary. He thought it very desirable that the Council should officially wait on Dr. Mackellar and represent to him the views of the profession, with the object of getting some amendments in the bill.

The PRESIDENT explained that unless the Council knew whether the members of the Branch were generally in favour of the report as presented or not, they could not approach Dr. Mackellar with any confidence. He explained that the report had been drawn up by a sub-committee of the Council and had been adopted by the Council. A copy had been sent to all members of the Legislative Council and Legislative Assembly, as well as to all members of the Branch.

After further discussion, the report of the Council as submitted was unanimously approved; and it was further agreed that the Council should wait on Dr. Mackellar and that the report should be the basis of conference with him.

Dr. MACDONALD GILL read a paper on "Post-Diphtheritic Heart Failure" (See page 534.)

Dr. LITCHFIELD congratulated Dr. Gill on his paper, and thought he had made out a very good case for post-diphtheritic bradycardia being due to heart-block. Dr. Gill had referred to a paper he (Dr. Litchfield) had published several years ago in which he expressed the view that heart weakness after diphtheria was due to degeneration of nerve fibres within the heart, and was analogous to the paralysis that occurred in other parts of the body. At that time he was unaware of the *modus operandi* of the toxin. He thought now that heart failure was due to degeneration of the muscular walls of the heart, and that the slow pulse results from the implication of the auriculo-ventricular bundle in that process. He referred to a case of extreme slowing of the heart after diphtheria with convulsive seizures. The pulse was full and strong between the seizures, and in that respect the case resembled Stoke-Adams' disease.

Dr. SINCLAIR GILLIES said that heart-block as a cause of death was not common, and some other condition must be present to lead to the death in these cases.

Dr. FLASHMAN did not agree with Dr. Litchfield that the toxin acting on the nerves caused degeneration of the nerves, which in its turn lead to fatty degeneration of the cardiac muscles. When a nerve going to a muscle was cut there was not such a rapid fatty degeneration of muscle.

Dr. GILL, in reply, said that he had brought forward the "heart-block" idea to explain the slow pulse; he did not mean to suggest that it was actually the cause of death. Patients suffering from "heart-block" might live many years. In post-diphtheritic toxæmia, many organs were affected at the same time. The absence of a jugular pulse in post-diphtheritic "heart-block" was interesting, as it was such a prominent feature of the "Stoke-Adams'" syndrome; probably it was due to paralysis of the right auricle. That was no doubt the fact in the case last described. He did not quite agree with Dr. Litchfield as to the way in which the cardiac degeneration was brought about. He thought that the toxin acted directly on the cardiac muscle, not indirectly through the nerves.

The remaining business was postponed.

Council Meeting.

THE Council met at the Association Rooms on Tuesday, September 8th, 1908. Present: Drs. Abbott, Crago, Rennie, Dick, Clarence Read, Brady, Pockley, Palmer, Maitland, Worrall, and MacCormick.

The minutes of the previous meeting were read and confirmed.

The Hon. Treasurer's Statement.—Credit balances: General account, £803 15s 7d; *Gazette* account, £733 15s 1d.

Private Hospitals Bill. — Resolved — That Drs. Abbott, Brady, and Worrall be appointed a sub-committee to watch proceedings in connection with the Private Hospitals Bill, and, if necessary, convene a special general meeting of the Branch.

Letters were read from Drs. A and B on a question of ethics.

Resolved.—That the Council is of opinion that provided Dr. B was assured of the patient's inability to get Dr. C and of the urgency of the case, he was justified in attending, but should have attempted at first to communicate with Dr. C by telephone before doing so. 2. Having attended, he should have at once communicated with Dr. C as to what he had done in the case.

Letter from a country practitioner on three questions of medical etiquette. After consideration the Council decided as follows:—

Case 1.—A has been attending Miss Z for months other members of her family. During A's absence from town Miss Z meets with a serious burning accident. A is sent for, and being absent, the messenger calls B. On the return of A he informs B of the facts as above. What is B's professional duty?

Answer.—Being a new case, B was quite justified in going on with the case—at the patient's option.

Case 2.—B calls A in consultation to Mr. S. Six months afterwards A is called to see Mrs. S. Is A precluded by the fact of consulting in the case of Mr. S. from attending Mrs. S. at any subsequent time, or, in fact, Mr. S. for a different illness?

Answer.—No.

Case 3.—A is treating Miss K for a certain ailment. Later Miss K, coming from a distance in the country to consult A, finds him away, and consults B. Later she returns to A. Is A behaving unprofessionally in again treating Miss K?

Answer.—No.

Letter from the Grand Secretary of the United Druids, asking if the conversion into a limited liability company of the Society would interfere with the existing arrangements between the members of the Branch and the Druids.

Resolved.—That the Council cannot at present see any objection to the members of this Association being medical officers of the incorporated Society, provided that all agreements be in accord with the model lodge agreement recently agreed upon in conference with the representatives of the Friendly Societies and the Branch, and that all payments be made *per capita* and at the rate not below the rates existing in the various districts in which the lodges are situated.

Letter from a country practitioner forwarding a copy of a proposed agreement.

Resolved.—That the agreement, as amended, be approved.

Letter from Dr. Dowling, of Young, stating that the agreement between the medical officers and the lodges had been approved on the lines of the model lodge agreement, except with regard to the wage limit. Received.

Letter from Dr. R. H. TODD was read with reference to the charter and the annual meeting at Sheffield.

Queensland.

A MEETING of the Queensland Branch was held on Friday, October 2nd, at the Technical College, Brisbane. Dr. Lockhart Gibson in the chair, and an attendance of 12 members.

Dr. LOVE showed a myomatous uterus removed under *stovaine*.

Dr. HARDIE read a paper upon "The Prophylaxis of Puerperal Eclampsia." (See p. 526.)

Dr. LOCKHART read a paper upon "Albuminuric Retinitis of Pregnancy." (See p. 532.)

South Australia.

The usual monthly meeting was held at the University on Thursday evening, September 24th, at 8 o'clock. Present: The president, Dr. A. M. Morgan (in the chair), and 37 members.

Dr. REISSMANN showed a youth, the subject of Hodgkin's disease (lymphadenoma). When he came under Dr. Reissmann's care the case appeared well-nigh hopeless, the patient was so ill. The different areas of enlarged glands, including the thoracic, were treated with the X-rays. The glands gradually subsided, the evidences of intra-thoracic pressure on the great veins disappeared, and a return to health followed. The glands can still be felt, but are only slightly enlarged.

Dr. CUDMORE showed a youth aged 21, from whom he had removed the left clavicle, the seat of a myeloid sarcoma. The patient was sent by Dr. Cromwell Magarey to Dr. Newland for his opinion and for a skiagraph, and the diagnosis mentioned above was made. Dr. Cudmore removed the clavicle in the Adelaide Hospital, and now showed the patient as an example of the slight disability the absence of the bone caused. The movements of the limb were as free as they were prior to the appearance of the growth, though it yet remained to be proved whether the arm was as strong. There was no deformity to be seen when the patient wore his coat. Indeed, some, when asked which was the affected shoulder had said the right instead of the left.

Dr. CUDMORE showed a clavicle, the seat of a myeloid sarcoma. (See above.)

Dr. T. G. WILSON showed the uterus and adnexa removed by vaginal hysterectomy from a woman aged 33, five-para. The patient aborted at six weeks four months ago, since then she had had constant blood-stained watery discharge and several very severe floodings. She had lost in weight considerably, and at the time of operation was markedly oedematous. Three small polypoid growths were removed by curettage, sections of which were typical of chorio-epithelioma. Vaginal hysterectomy was performed a week later.

Dr. H. S. NEWLAND showed a right kidney, the seat of long-standing tubercular disease, which he had removed from a woman aged 57. Dr. Marten had opened a perinephritic abscess four years ago. The skiagraphed, and as a result a large calculus was removed. The wound healed and the patient remained well until nine months ago, when the right kidney became large and tender. Tubercle bacilli were discovered in the urine. Segregation of the urine having proved the competence of the left kidney, nephrectomy was advised and refused. Four months ago the patient again consulted Dr. Newland. She was then in a very weak state. A rapid nephrotomy was performed, nephrectomy being postponed until the patient was

is better able to bear the shock. This was successfully performed ten days ago.

Minutes.—On the motion of Dr. W. T. HAYWARD, the minutes were taken as read.

The SECRETARY read a letter he had received from the Attorney-General *re* reporting of deaths to the Coroner.

The ordinary monthly meeting now resolved itself into a special meeting to consider the library scheme proposed by the Council.

The PRESIDENT called on Dr. H. S. Newland to explain his scheme to Branch. This he did, clause by clause. He concluded by saying that no better opportunity of securing a medical library for members was ever likely to offer and strongly urged the Branch to accept the scheme. Should this be done the Library Committee of the University was pleased to urge the acceptance of the scheme on the University Council.

Dr. SWIFT proposed—"That the Council of the Branch endeavour to ratify an agreement with the Council of the University on the lines laid down in the scheme." Seconded by Dr. W. T. Hayward.

The motion was carried unanimously.

Dr. J. A. G. HAMILTON suggested that perhaps better terms might be made with the University.

Dr. J. C. VERCO suggested that it would be well to have a clause drafted by a lawyer to safeguard any endowments or other funds presented to the Branch for library purposes. It was agreed to leave this matter to the Council.

The PRESIDENT next put each clause to the meeting. With the exception of a few unimportant alterations in clauses 9, 10, 10a, 10d, and 10f the scheme was approved in its original form.

The special meeting then terminated.

Dr. W. T. HAYWARD, President of the "Medical Defence Union," explained the reason for the manifesto which the profession was to be asked to sign. If there was unanimity in the matter he was confident better terms could be obtained from the lodges.

Dr. HAROLD supported Dr. Hayward and said it was essential that every man in the profession should sign the manifesto whether he had "lodges" or not.

The meeting then terminated.

West Australia.

THE ordinary meeting of the above Branch was held at the Charlemont Hospital for the Insane on September 13th, at 4 p.m. There were present Dr. Officer (vice-president) in the chair, and 28 others.

The proceedings began by Dr. Montgomery conducting members over the buildings. After nearly two hours had been spent in inspecting the various departments of the hospital, Dr. Montgomery entertained the members at dinner.

After dinner the minutes of the previous meeting were read and confirmed, and Dr. Montgomery then read a most instructive paper taking as his subject "Paranoia." On the completion of the paper Dr. Montgomery showed a series of cases illustrative of different phases of the disease.

After a hearty vote of thanks to Dr. Montgomery had been carried, the meeting terminated.

A dinner was held by above Branch in the Palace Hotel, Perth, on September 12th, 1908.

In the absence through sickness of the President, Dr. Officer, vice-president, took the chair. Twenty-three other members were present. There were also present as guests of the Branch, Dr. Chapman of the Sydney University, who has been in West Australia delivering a series of lectures in connection with the

University extension movement, and Dr. T. H. Lovegrove, Principal Medical Officer for West Australia, who is shortly retiring from the position.

After dinner the toast of "The King" was proposed by Dr. Officer. The other toasts were "Our Guests," proposed by Dr. Officer and responded to by Dr. Chapman and Lovegrove; and "The W.A. Branch," proposed by Dr. Leschen and responded to by Dr. Saw.

Drs. Leschen and Campbell contributed to the pleasure of members by rendering several musical items, and a very pleasant social evening was closed in time for suburban members to catch their trains home.

OBITUARY.

We regret to record the death of George Paul Minchin Woodward, L., 1851; M., 1879; R.C.P. (Irel.); L., 1850; F., 1879; R.C.S. (Irel.); M.D. (Brux.), 1879, late New South Wales Railway Medical Officer, which took place at his residence, Coogee, Sydney, on October 4th. He was the youngest son of the late William Woodward, of Clough Prior Castle, County Tipperary; for the past 25 years he was well known in Sydney. A graduate of Trinity College, Dublin, he early entered the army as a surgeon in the Royal Horse Artillery, and saw service in the Crimea, the Indian Mutiny, and the Abyssinian War. He retired about 30 years ago with the rank of Deputy Surgeon-General, and came to New South Wales in 1882. Soon after his arrival he was appointed New South Wales Railway Medical Officer, conjointly with the late Sir Alfred Roberts, and a year or two after, when the latter retired, Dr. Woodward was appointed sole Medical Officer to the Railways and Tramways. This position he occupied until obliged by failing health to resign in January this year. Dr. Woodward was instrumental in establishing the New South Wales Railway and Tramway Ambulance Service, in which he took the keenest interest. Within a fortnight of his death he was preparing to bring out a sixth edition of the Railway Ambulance Handbook, which is extensively used, not only in New South Wales, but throughout the other States. A fortnight ago he received a deputation of railway and tramway officials, who presented him with a framed address in acknowledgment of his many years' untiring interest and work on behalf of the Ambulance Association. His wife predeceased him by 10 years. He has left four daughters, and his only son is settled in New York. The funeral took place at Waverley, and was largely attended.

Charitable Donations and Bequests.—Four members of the board of management of the Hobart General Hospital have decided to donate a cot each to the Children's Hospital. The cots will be of uniform pattern and design.

Women's Hospital, Sydney.—At the last monthly meeting of the board of directors of the Women's Hospital, the hon. treasurer reported that £1400 was available for building purposes, and the hon. architect (Mr. R. H. Robertson) was instructed to call for tenders for the extension of the present hospital buildings, and also for the erection of an isolation ward. Mrs. Hugh Dixon's donation of £200 was supplemented by another £50 towards defraying expenses in connection with the erection of the isolation ward. The donations for the month include that of the Hospital Saturday Fund, £140, and the Australian Exhibition of Women's Work, £155 19s 7d. The Centuries ball, held in July last, resulted in a net return to the institution of £340.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

A series of three papers under the above heading appears in *The Annals of Surgery* for July. Binnie contributes a short paper on "Treatment of popliteal aneurism by the reconstructive method," in which he states that much attention has been devoted to this subject since Matas read his classical paper on endo-aneurismorrhaphy before the American Medical Association in 1902. Binnie confines himself to a consideration of the possibility of obliterating the aneurism and, at the same time, reconstructing the artery in such a fashion that the circulation through it may be restored. For a clear understanding of what may possibly be obtained and of what can surely not be attained, it is necessary to refresh our memories as to the common varieties of aneurism. (1) If a small area of a pneumatic tire becomes degenerated the pressure of the air causes a local, more or less spherical, bulging at this spot. If the bulging part is opened we see that it is a sac with a small opening communicating with the interior of the healthy tire. This corresponds accurately to the ordinary sacculated aneurism. (2) If the degenerated area of the tire includes the whole circumference of a limited section of the tire, then the tire endeavours to dilate uniformly, in a fusiform fashion, but is prevented by the felly or solid rim of the wheel. On opening the dilatation we find it is a sac with an opening at each end. The sac is not a pouch of the tire; it is the tire, and the whole wall is degenerated. This condition corresponds to a fusiform aneurism which lies against and is supported by bone, and can to some extent mimic a sacculated aneurism. (3) The degenerated area includes the whole circumference of a limited section of the tire; but the felly is absent. A fusiform dilatation results and corresponds accurately to a fusiform aneurism. (4) The degenerated area involves considerable of the length but little of the width of the tire. Corresponding to this area there is bulging of the tire. If the sac be opened, we see two openings, but these openings are connected one with the other by means of a distinct groove or gutter consisting of sound material. The form of defect is identical with that first mentioned, except that the connection between the sac and the lumen of the tire itself is a long slit instead of a round hole. This corresponds accurately to a sacculated aneurism, but a sacculated aneurism which mimics and is often mistaken for a fusiform aneurism. The illustration used by Matas when describing reconstructive endo-aneurismorrhaphy applied to fusiform aneurisms shows distinctly this type, not the fusiform type of aneurism. If the fusiform aneurism is ever the result of direct injury to the vessel without there being pre-existent disease of the wall, it must be very rare. To the author it seems almost an impossibility. The development of an aneurism is generally to be referred to some series of strains acting on a vessel whose strength has been diminished by pre-existing disease. This view is supported by the fact that labouring men are the usual victims of, and that in about 80 per cent. of the cases a history of syphilis is present. Atheroma is commonly and vaguely accused of being the predisposing cause of aneurism, but atheroma is most marked in the aged, while aneurism seems to prefer victims of from 30 to 50 years. Pierre Delbet has noted that while the popliteal artery is a favourite site of aneurism, it is not a common site of atheroma. He believes with Eppinger

that the cause of aneurism is mechanical injury causing rupture, especially of the middle coat. Malmsten thinks that gummatous degeneration of the middle coat of an artery is the predominant factor in the genesis of aneurism. Councilman regards arteriosclerosis as the most common cause of aneurism, and believes that it is most common in the beginning of the arterial disease when the degeneration of the media is not compensated for by thickening of the intima, and when the individual is still capable of severe and sudden muscular exertions, which suddenly raise blood pressure and can cause injury to the already weakened intima. Binnie has used the method originally outlined by Matas in two cases. In the first he did not recognise at the time that he was doing a so-called reconstructive operation. He closed the simple opening into the sac with catgut, and then obliterated the sac by rows of sutures. The second case was a male of 67 with a popliteal aneurism. Under ether, an elastic constrictor applied to thigh, a longitudinal incision into tumour revealed a cavity full of soft, black, non-lamellated blood-clot. Cavity had no distinct walls, and was size of two large fists. After the clot was removed, a ruptured aneurism as large as a medium-sized orange was found communicating with the cavity through a $\frac{3}{4}$ -inch opening, about $\frac{1}{2}$ -inch from the remnants of the arterial trunk. The walls of the aneurism were fairly healthy. On splitting the true aneurism sac, two arterial openings were found about 1 to 1 $\frac{1}{2}$ -inches apart. Fairly healthy arterial wall, consisting of about two-thirds of the circumference of the artery, united the two openings, and formed a groove at the bottom of the sac. A catheter (Fr. 15) was put into the arterial openings, and the communication between the artery and sac was closed by iodized catgut sutures, the catheter being removed before the sutures were tightened. Obliteration of the sac by continuous catgut suture. Cigarette drain in the blood cavity first encountered. Skin wound closed, dressings applied. Limb placed in vertical position. Constrictor removed. The condition was one of ruptured traumatic aneurism. Owing to the impossibility of obliterating the false aneurismal cavity, healing was slow, but the aneurism has remained cured. In both cases reported, as well as in a case seen with Dr. Frick, the result as regards cure of the aneurism was good; but in none of these cases could it be proved that the circulation was restored through the vessel. In a third case, Binnie endeavoured to utilise the principles of modern arterial surgery. After turning out the blood-clot, the patent portion of the artery was well and gently washed with salt solution, and then smeared with vaseline. The hiatus was closed as in the Matas operation, but vaselined No. 1 von Braun's hemp was used as suture material. Two rows of these continuous sutures were inserted. There was not enough aneurismal sac of sufficient strength to permit suture obliteration of the sac. For twelve days progress was satisfactory, and the tibial pulse was good; but as the result of the patient making too free in moving about in bed and shaving himself, the union broke down, and later, amputation at the lower third of the thigh became necessary. Recovery. A pathological and microscopic report of the condition is given, and Binnie in his concluding remarks states:—"The result of the operation was a failure, but a failure which came near being a success. The case was most unfavourable; the closure persisted for two weeks, and then only about one-third of the line of union gave way. The case was most unfavourable; the arterial wall was markedly degenerated; the line of suture was absolutely unsupported by surrounding structures, and lay exposed in

the cavity of a false aneurism, and yet apparently success was almost attained. This failure encourages one to hope that under more favourable circumstances, success may be confidently expected, and that perhaps in some cases of sacculated aneurism of the abdominal aorta it may be possible to open the aneurism sac, close the opening in the aorta, support the line of suture by obliterating the sac by means of sutures, and so make the weakest point in a weak aorta as strong as the rest of the vessel.

Abbe gives his "personal experience with the modern method of treating aneurism." He says, thirty years ago, it was considered safest to cure an aneurism by arresting its blood current by digital compression for a sufficient time to fill it with solid clot. It was common practice for the college professor to call for relays of volunteer medical students, to compress a femoral artery under thumb or finger pressure, for two days or more, until the aneurism was solidly clotted. Ligation by silk in those pre-Listerian days resulted too often in fatal hæmorrhage by ulceration of the vessel. Subsequently, antiseptic ligation held the field almost exclusively. One idea dominated the whole teaching of treatment, viz., the successful filling of the sac by clot, which subsequently "organised" and shrank. Ten years later, the theory of thickening and stiffening the resisting wall of the sac by induced inflammation and cell proliferation was advocated, and its use put to the test in aortic, innominate and other inoperable types of aneurism. The theory of building up and fortifying the wall from within soon became accepted as an available method, and new hope was excited. In 1886 and 1887 the introduction into the sacs of silver and steel wire or of silk thread was advocated, with the double purpose to induce clotting and irritate the sac lining. About the same date, puncture of the wall by electrolytic needles, using a sharp current to excite inflammation, had many advocates and considerable success. Even Macewen's later method of scratching the lining with long hatpins, transfixing the sac, was based on the same theory. Proliferation of the endarterial coats was the keynote of the success of these methods. Two facts were demonstrated by these valuable contributions to our surgical knowledge of aneurism: First, that the sac wall, if irritated, can be made the important factor in curing aneurism; second, that where the tumour is large, the endarterial lining is considerably replaced by cellular tissue, and the thinned out lining is too far gone to be available; failure by such method is sure. This demonstration of the value of the reparative building up of the aneurism wall, rather than relying on clot filling alone to cure the aneurism, prepared the surgical world to receive the new method of Dr. Matas. Abbe was able to employ it first in May, 1905, in a popliteal aneurism of considerable size, which had been giving much pain from nerve pressure. It was a simple matter to have the femoral artery compressed during the operation, and then on splitting open the sac, through a vertical skin incision, he found its walls were eccentric to the artery, strong and continuous on the side toward the joint, but thinned out posteriorly. It was not difficult to place a fine chromicised catgut suture at the open mouth of the artery, and suture the walls together by continuous stitch from above downwards, till the sac was completely closed. One branching vessel opened into its lower half, and was included in the suture. The same thread was continued into the overlying fascia and subcutaneous areolar tissue. A compress dressing without much pressure gave primary union, and the case was perfectly cured without the slightest peril to

the circulation of the foot. Prompt relief of pain followed. Abbe's success in this case emboldened him to try the method in a second case, where it was peculiarly available. A young Russian, of 24 years, had been developing for three months, right sciatic neuralgia with disability in walking, and some swelling of his foot. Examination showed a spherical pulsating tumour, three inches in diameter, beneath the gluteus muscle at the sciatic notch, where its pressure had caught the sciatic nerve, and held it tightly against the bone, hence the neuralgia. A temporary ligature was thrown round the external iliac artery and held as a loop by an assistant, who drew it up against his index finger-tip so as to avoid crushing it by tight ligation. This stopped pulsation in the tumour. He then incised over the tumour and separated the gluteus. The sac was well distended and easily isolated. Its neck filled the uppermost corner of the sciatic notch. On compression, after the pulsation had been stopped from above, it emptied, and quickly filled again. By inference this must have been by anastomosis, as the iliac artery was quite occluded by the silk loop. Seeing no way to keep it entirely empty, Abbe ventured to cut it freely open, and relied on instant internal pressure to stop loss of blood. He plugged the opening of the gluteal artery with his index finger-tip, and found no other bleeding occurred. He then began a continuous suture of the internal wall with fine chromicised catgut, first fixing it by a knot above his finger-tip. After placing the first four stitches, there was no bleeding, and he leisurely secured one wall against the other by continuous back and forth suturing, with the same thread. The patient made an immediate recovery, and up to three months after operation there was no recurrence of tumour or sciatic pain.] Blake records a "case of popliteal aneurism presenting unusual difficulties in the application of the Matas operation." The artery lay superficial to the sac, so that it was difficult to properly obliterate the sac. The opening in the vessel was, however, closed with a single row of chromicised catgut, which somewhat narrowed the lumen. A ligature was also placed on the artery on the proximal side of the aneurism. The patient made a good recovery, and there was no sign of recurrence at the end of three months. Blake concludes his paper with the following remark:—"Although my experience has been gained from this one case, and although it was unsatisfactory, I feel that the operation is simple. It is hardly necessary for me to say that it is based upon sound principles and is effectual, for this has already been proven by the brilliant results obtained in the hands of a number of operators, none of them reporting more than a few cases.

THERAPEUTICS.

The Administration of Water in Childhood.

Barbour (*Medical Record*, February 8th, 1908) points out the importance of water in the dietary of infants. He thinks that not enough water is usually allowed, although, according to Holt and Jacobi, a child requires, approximately to its weight, from six to eight times as much water as an adult. Hence the physiological reasons for giving children very diluted food, since the large amount of water is necessary for the metabolism of the child's body. He has frequently allayed vomiting in children with no other medicine than a few teaspoonfuls of water, and he considers that about half a pint of water should be allowed an infant of a few months old. But a larger amount than this can be given in the hot weather, or if the child be feverish. He thinks, further, that when an infant cries it is often not for food, but for drink, and the practice of giving it

the breast or some other food whenever it cries is consequently improper. He emphasises the fact that when there is watery diarrhoea the child needs water, and plenty of water will prevent other complications. If the urine be scanty and high coloured, and especially if the child cries when it urinates, plenty of water should be given. If it is hoarse and has a cough, water in abundance should be allowed, so as to liquefy the urinary secretion and favour its removal.

Treatment of Angina Pectoris.

Clifford Allbutt (*Folia Therapeutica*, January, 1908) considers that of all the dangerous maladies this is the most amenable to treatment. There are three objects to be attained in treatment: First, if possible to mitigate the lesion of the attack; second, to reduce the stresses; and thirdly, to block the inhibitory influence on the heart. To combat the local condition directly we may use antidotes, such as salicylates if there be a rheumatic condition; iodides and mercury if syphilitic; also specific treatment for gout, if that be present. The toxins of other diseases, such as influenza, cannot be directly neutralised. To reduce the tension, gentle and frequent mercurials, such as calomel, with laxative mineral waters, c..., salicylates, iodides, and strict diet may be employed. Flatulence and catarrhal states of the stomach must be relieved. Meals must be restricted in quantity, carbohydrates must be used sparingly. Alcohol, strong tea and coffee must be avoided. Rest in bed is essential. From the first attack of angina the patient should be sent to bed as if he had an aneurism, so as to reduce the work of the heart as much as possible. The pressure should be reduced as low as consistent with health by vaso-dilators, in co-operation with the measures just described. The value of the nitrites in reducing aortic pressure is well known, and although their action in this respect is transient, it seems beneficent to reduce tension even for short periods, and so give the heart a chance to recover. Osler urges the use of large doses of nitrites, and has given as much as 30 minim doses of liquor trinitrini three times daily. Sir W. Gowers thinks that the prolonged use of the nitrites has a "steady effect on the vaso-motor centre." The value of the iodides in arterial diseases, arterio-sclerosis, aneurism, and angina pectoris is well recognised. They should be given in doses of 3 to 5 grains thrice daily, unless there be a definite syphilitic history, when larger dose is required, 15 to 20 grains. This should be continued for six months, with such temporary suspension as any intolerance of the patient may indicate. In the palliation of the attacks the nitrites are the chief remedy. To block the reflex by which the heart is inhibited he uses atropin continuously until the liability to an attack seems to have vanished. As tolerance is established the dose must be increased accordingly. Morphia also probably blocks the dangerous reflex path, and should be used in doses of not less than one quarter of a grain hypodermically, or if there be any hesitation about giving this dose, one-sixth of a grain can be given, and this repeated in about ten minutes.

Iodoform in Tuberculous Peritonitis.

Wilcox (*Medical Record*, May 2, 1908) states that iodoform has long been recognised as the most powerful agent for the local treatment of tuberculosis. It is, however, only effective during the process of changing from iodoform to iodine, i.e., the nascent iodine is the really effective agent. To induce this change the iodoform must be brought into contact with such liquids as have the power of breaking it up and making

it available. Pus and the contents of a tuberculous abscess have this power, and this is the reason for the activity of the agent when brought into contact with these liquids. In cases of tuberculous peritonitis it would not be possible to bring iodoform powder into actual contact with the vision focus except by operation, and it was with the idea of rendering iodoform easily absorbent through the skin that the author adopted the following solution: Iodoform 2 drs., ether 3ii., and olive oil or cod-liver oil to make 3viii. This solution applied to the abdomen night and morning. The author reviewed three cases treated in this way with very beneficial results—practically a cure of the local condition in each case.

Oatmeal in Diabetes Mellitus.

Herrick (*Journal of the American Medical Association*) describes the composition of the Von Noorden oatmeal diet in diabetes and the method of its uses. 250 grains of oatmeal are cooked thoroughly in water for two hours, then 250 to 300 grains of butter and six to eight eggs or the whites of eggs are well stirred in when the cooking is nearly done, or the whites of the eggs are beaten up and stirred in later. Salt is added to suit the taste. This forms one day's rations for an adult, and may be given in from three to eight portions. Von Noorden advises feeding every two hours, and he occasionally allows a little clear coffee or a few sips of some wine to relieve the monotony. This diet may, in severe diabetes, ward off the impending coma and establish a carbohydrate tolerance. It is of no use in the milder cases (it may even do harm in them), and is not infallible in the severe ones; but in cases where there is emaciation with weakness, polyuria and glycosuria, in spite of careful treatment and when there is acetone, diacetic and oxybutyric acids and ammonia in the urine showing acidosis with threatening coma, then this diet is useful. It should be continued for a fortnight, and then return to the ordinary diabetic diet should be gradual. The main objection to it is its lack of appetising qualities, but this can be counteracted in some degree by care in preparing and administering the food. It is not explained why this diet produces results so contrary to what might be expected—why it does not increase the sugar and acetonuria. Herrick found its good effects especially noticeable in the diabetes of the young, and concludes that Von Noorden's claim for this diet is worthy of confirmation. While the stomach will occasionally rebel and while no claim of a cure of diabetes can be made for it, the diet still remains a most valuable therapeutic agent for the warding off of impending coma in the severer types of this disease, and for assisting in the establishment of a tolerance for carbohydrates. In the diabetes of children, if employed early, it seems to exert an unusually favourable impression.

Drug Treatment of Tuberculosis.

The *Medical Times*, August, 1908, says:—Dr. Nathan Raw, physician to the Mile Road Infirmary, Liverpool, England, advocates the use of the following mixture as a routine treatment for loss of appetite, profuse cachexia with night sweats in tuberculosis:—Quin. hydrochlor. gr. 2, calc. hypophosphite gr. 4, tinct. nux. vom. m. 10, tinct. aurantii drs. 1½, glycerine dr. 1, aq. ad. oz. 1; to be taken three times daily, half an hour before meals. Pure beechwood creosote is one of the best drugs for the treatment of phthisis. It seems even in advanced cases with cavities to exert an all-round beneficial influence, such as relieving night sweats, diarrhoea and cough, and improving appetit.

and digestion. It may be given in capsules containing 5 minims. Keferstein strongly recommends a mixture of 45 minims of creosote dissolved in 1 oz. of tincture of cinnamon, of which 50 drops may be taken in half a cup of warm milk or a little wine. Hudeod and others strongly recommend the administration of creosote by the rectum, as it removes all difficulties regarding taste. There are at present many other modifications of creosote treatment in use. Benzsol has an excellent reputation, given in 5 to 10 grain doses, as it loosens expectoration and relieves cough. Creosote carbonate is also much used. It is a liquid of syrupy consistence, and is suitable when there is much cough and difficulty in expectoration.

DISEASES OF THE EAR, NOSE AND THROAT.

Laryngostomy and Tracheo-laryngostomy in the Cure of Semi-chronic Stenosis of the Larynx or Trachea, especially when cicatricial.

This is a lengthy translation by Mr. Chicheli Nourse, of London, of an article by Drs. Sargnon and Barlatier, of Lyons. The first section appears in the July number of the *Journal of Laryngology* (1908) and is continued in the two following months. This operation consists in laying open the larynx and the upper part of the trachea in such a way as to insure a permanent opening, or a temporary one of long duration, and it is done for those dense cicatricial stenoses of the larynx, which fortunately are rare, and in which it is desired to enable the patient to dispense with his tracheotomy tube. The careful perusal of the papers would seem to show clearly that there are no special troubles in doing the operation, but the real troubles are in the after treatment in keeping the wound in the trachea and larynx open (the edges of the larynx are usually stitched to the skin) in keeping down its granulation tissue and inducing the wound to become epidermised. This is done by most carefully attending to the placing and wearing of various shaped tubes, which keep a larynx from contracting. The process of healing and treatment is one which takes the personal attention of the surgeon, and that for long periods of time, usually six or nine months. Any opening left in the neck is easily closed by a plastic operation.

The Treatment of Innocent Laryngeal Growths by the Galvanic Cautery.

A. Wylie (*The Lancet* of November 23rd, 1907) has a paper on the above subject, and the advantages of the cautery as a method of treatment may be summarised as:—(1) Very minute growths can be obliterated, and experience shows they do not return. (2) Small vascular growths can be removed without the risk of hæmorrhage. (3) There is far less danger of local reaction than after using chemical caustics as chromic acid. (4) The technique is more reliable, more precise, and involves less risk of damage to adjacent structures. (5) The whole operation is in the view of the surgeon—this is not so in the case of forceps. (6) A small sessile growth on the mesial surface of the vocal cord is more easily treated than by forceps. (7) If the growth is removed by any other means the stump may be obliterated by the cautery. (8) The forceps may only remove the superficial part of a growth, but the galvanocautery cuts off the blood supply and thus kills the growth. (9) The liability of local infectivity of papillomata is diminished.

The Submerged Tonsil, with Special Reference to Cervical Adenitis and Systemic Infections.

In *American Medicine* for July, 1908, there is an article by Hurd on the importance of detecting and eradicating the tonsil which is not evident on looking in the throat. This he calls the submerged tonsil, and he divides the tonsils clinically into these submerged ones which do not protrude at all and are more or less covered over by the pillars of the fauces, into those which protrude beyond the tonsillar pillars, but are partly embedded between them and those tonsils, the large round glands that seem to hang almost free in the throat.

The last named are easily removable, but the first and second classes give much more trouble to remove, and are more often overlooked by the medical man as the cause of trouble.

He states that the tonsil which is more or less submerged seems to be less able to resist the bacterial (especially tubercular) invasion. The lymphatic drainage of the tonsils is into a gland at the angle of the jaw, just in front of the sterno-mastoid muscle in the deep cervical chain, sometimes called the tonsillar gland, and this gland will regularly swell when the corresponding tonsil is the subject of either an acute or chronic inflammation. He says that in the opinion of many good observers that the lymphoid tissue of the throat is the point of entrance for measles, scarlet fever, and other exanthemata.

There seems to be good ground to think that acute articular rheumatism and certain joint and muscular pains that are generally covered by the term rheumatism are due to tonsillar infection, and finally that an attack of acute tonsillitis is not seldom complicated by an endocarditis that may leave permanent valvular changes.

He asks what is a normal tonsil, or is there a normal tonsil? He quotes Wright, who says that a tonsil which is demonstrable is probably pathological. In the submerged tonsil the bad drainage of the crypt probably accounts for its liability to harbour trouble.

He concludes that the evidence seems to be clear that a tonsil that is causing the cervical glands to enlarge must come out; further that it must come all out. Simply cutting off the tonsil is not enough. It must be tonsillectomy, not tonsillotomies, because the latent tubercular or other infections are found in the deepest part of the tonsil. Why the general surgeon who removes tubercular cervical glands frequently has a return of the condition is because he leaves the primary focus. The method of removal is of no consequence, but make use of the safest and simplest method which will completely get rid of each crypt.

District Nursing in Launceston.—The report of the work for the past 12 months, which was read at the annual meeting of the District Nursing Association, expressed thanks to the medical men who had granted their services gratuitously, and to many friends whose donations of money, clothes, food, fuel, etc., had increased the resources of the association. The number of visits paid during the year was about 6380. The statement of the year was commenced with a credit balance of £45 18s 6d, and the receipts from all sources totalled £72 2s 7d, the expenditure being £102 6s 3d. There was thus a credit balance of £17 14s 10d. The association's nurse, who had been granted six months' leave of absence on account of ill-health, would probably resume work in November.

MEDICAL MISCELLANY.

At a meeting of the Philippine Island Medical Association at Manila in February last, a report on the first one hundred autopsies at the Philippine Medical School showed that over 50 per cent. of the cases presented marked signs of tuberculosis, and that more than 30 per cent. were found to have lesions of amœbic dysentery. This latter fact is specially interesting in view of the belief generally held previously that the natives did not suffer from amœba to any extent. From the figures now given it would appear that they suffer probably as much as the white men.

Dr. Osler, Regius Professor of Medicine at Oxford University, has consented to contest the Lord Rectorship of the University of Edinburgh in November as a non-party candidate. He is the first physician ever nominated for the office. His candidature is warmly supported by 1400 medical students. His opponents will be Mr. Winston Churchill and Mr. George Wyndham.

The committee on the Prevention of Tuberculosis of the Charity Organisation Society of New York are having distributed among Italian families some 10,000 coloured posters, with a view to impressing upon tenement dwellers that consumption is preventable by sunlight, fresh air, proper food, and temperate habits. The poster shows a Venetian scene copied in bright colours from a painting by H. P. Smith. The lithograph is bordered with good advice in large type. The same novel idea will later be carried out among other nationalities.

For the week ending July 28th the death-rate in New York was 18.50 per 1000, the total number of deaths being 1568. Last year during the corresponding week the rate was 22.08, and total number of deaths was 1811. In 1907 the number of deaths of children under five reported during the week reached 949; this year the total was 739. For the week ending August 1st the death-rate was 18.63 per 1000 against 21.98 for the corresponding week in 1907. The total number of deaths was 1410 this year, with 1804 in the corresponding week last year.

A short time ago there was a very animated discussion in the Berlin Medical Society on the value of sanatorium treatment of tubercular patients. A number of the speakers held that the drop in the death-rate from this disease was due to the better hygiene and improved methods of living and not to the influence of sanatoria.

For some time past there has been a good deal of discussion in certain parts of South Africa over the management of the hospitals. Some think they should be government institutions and supported by public funds. Others are of the opinion that they should be purely local affairs, while a third set think that both plans should be adopted in part, and the hospitals receive both local and government support.

According to *Science*, a committee on the use of lead in the manufacture of earthenware and china has been appointed by the British Home Secretary. The committee is to consider the dangers attendant on the use of lead in pottery, and to report how far these can be obviated by improved appliances and methods in lead process, by the limitation of the use of lead by the substitution of harmless compounds for raw lead, or of other materials for lead, and by other means. The committee is also instructed to consider the danger and

injury to health arising from dust or other causes in the manufacture of pottery, and the special rules regulating the decoration of earthenware and china.

From Paris it is reported that a medical man and a chemist of Bordeaux have been convicted of conspiring to defraud insurance companies by prescribing and supplying unnecessary draughts to injured workmen, and thus enabling them to substantiate fraudulent claims. The doctor was sentenced to eight months' imprisonment, a fine of £4, and suspension from practice for three years, and the chemist to three months' imprisonment, £4 fine, and two years' disqualifying. They were further ordered to pay jointly £32 damages to defrauded employers. It is to be feared that frauds of this kind may become frequent wherever workmen can claim compensation for trivial injuries.

Vienna will shortly open new municipal slaughter-houses for the killing of horses. There has been a steady increase in the consumption of horseflesh in the city, over 20,000 horses having been slaughtered during the last year. Most of the flesh is made into sausages of various kinds. The new buildings cover an area of 3300 square yards and provide stabling for 200 horses, and stalls for killing 59, each fitted with hoisting apparatus.

In Texas the experiment of using blind persons as telephone operators has been tried with great success. The keen sense of hearing possessed by those who have no sight is an advantage, and they learn quickly to manipulate the keyboard by the sense of touch. The occupations in which the blind can engage are so limited that this field which, if available, would be almost unlimited, because of the great extensions of telephone systems seems worthy of investigation.

Japan has now been asked to join the other Powers in consenting to the restriction of the importation of morphine into China, as well as of instruments used for injecting the drug. Measures for the control of the traffic are to be discussed at a congress which will meet in Shanghai next January. Unless Japan gives her consent, China is helpless to restrict the importation of the drug.

The report of the Board of Health for the Philippine Islands states that since March 1st, 1908, when the prohibition of the use of opium, except for medical and scientific purposes, became absolute, the number of opium habitués desiring hospital treatment has enormously increased. Of the 307 patients admitted at San Layarto, 260 have been discharged as cured. The majority seem to be really anxious to be relieved.

The question of prohibiting the manufacture and sale of absinthe in Switzerland having been put before the people, a vote of 80,000 majority in favour of the prohibition has been recorded. In France a circular signed by 114 of 300 Senators has been issued proposing the passing of a bill making the manufacture of absinthe a crime.

A former patient at the Villejuit Insane Asylum returned after his discharge and shot the physician-in-chief, the eminent alienist, Prof. A. Marie, last month, one bullet entering the chest and another the thigh, but neither doing much harm. Both bullets were removed at once, and Marie is not considered in danger. He recently assumed the editorship of the "*Archives de Neurologie*."

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Etiology of Disease—Lunacy Statistics—The Census Returns—The University of London—Registration of Nurses—Government Grants for Scientific Investigation—London School of Medicine for Women.

In his report upon the health of the borough of Portsmouth for 1907, which has been recently issued by Dr. A. M. Fraser, the Medical Officer of Health, some interesting facts in connection with the origin and spread of disease are set forth. Referring to diphtheria, of which disease 423 cases were notified during the year, Dr. Fraser states that the attack rate was 2.0 per 1000 of the population, and adds that one undoubted source of infection is the domestic cat. In common with many other medical officers of health, he has often been able to find the diphtheria bacillus in the throats of cats. The occurrence of a previous illness in a cat, described as like a bad cold, was often found on making inquiries in a household where one of the children had developed diphtheria. The number of cases of enteric fever notified was 233. Of this number 80 were traced directly not to insanitary conditions in the borough itself, but to articles of diet specially contaminated with the typhoid bacillus. "The one article of diet," the medical officer adds, "which in this town has a special relationship to typhoid fever, is shellfish, and during last year no fewer than 80 persons, or 34 per cent. of the total number attacked, contracted typhoid fever from this source. Oysters, cockles, butterfish, and mussels are continually picked up from the polluted sources round about Portsmouth and consumed with a total disregard to the ill-results that are certain to ensue. It seems," says Dr. Fraser, "that the only thing that can be depended upon to stop this loss of life is legislation, making it illegal to collect shellfish from any places certified by local medical officers to be subject to sewage pollution." During the first half of the year the borough suffered from a prevalence of measles. The medical officer points to a difficulty encountered in trying to stop measles amongst school children, which, he states, arises from the anxiety on the part of the school attendance officers to get as many children as possible to attend school. On many occasions, he adds, on making inquiries at houses where there were cases of measles it was stated that the other children were still attending school, because ordered to do so by the school attendance officer.

The sixty-second report of the Commissioners in Lunacy was issued on August 20th. It states that on 1st January there were 126,084 certified insane persons in England and Wales, as compared with 123,988 on the same date in 1907. This increase of 2096 persons is less by 315 than the annual average for the previous years. Of the total number of patients, 93,582, or 74.2 per cent., were being maintained in country and borough asylums, the actual increase in such institutions over last year's figures amounting to 2422, or 326 in excess of the total increase of all the insane. This is due to the fact of the opening of the Long Grove Asylum of the County of London, whereby many patients who had been boarded out in Fisherton House, Salisbury, were called in. The private patients under care on January 1st last numbered 10,112—males 4427, females 5685, an increase of 223, being 56 in excess of the average increase of the last ten years, and 136 above that for the year 1906. The pauper patients under care on January 1st numbered 114,989—males

53,166, females 61,823, and amounted to 91.2 per cent. of all the certified insane. The criminal lunatics—males 742, females 241, have increased by 20. There was a net increase in the number of insane paupers in forty counties, amounting to 1297 in all. In twenty-one counties there was a net decrease amounting to 327 in all. The County of London shows an increase of 410 as compared with that of 356 in the preceding year. Of the home counties, Middlesex shows an increase of 155, Essex of 65, Kent of 56, and Surrey of 23. The county showing the greatest net increase was Devon, namely, 64; last year's figures being in excess over 1906 of 27. Of the 72 county boroughs, there were 53 in which an increase in the pauper insane occurred, amounting to 874 in all; in 17, a decrease amounting to 165; whilst in two, viz., Bournemouth and Bristol (which last year showed an increase of 52 on 1906), there was neither increase nor decrease. Plymouth, with an increase last year of 67, has a decrease of 43. Birmingham gives the highest increase, viz., 57, or a per cent. rate of 3.1; Liverpool, 46 (rate of 1.4); Manchester, 43 (rate of 2.0); Southampton, 39 (rate of 8.3); Sheffield, 33 (2.8). Next to Plymouth, the greatest decrease was in Halifax 21, and Wolverhampton 15, both of which showed a decline in the previous year.

Some remarkable figures in regard to the death-rate in various businesses and professions are brought out in a supplement to the Registrar-General's analysis of the census for 1901, published at the beginning of August. Clergymen and farm-labourers are shown to be the longest lived; general labourers in industrial centres and hotel servants the shortest. Taking the average mortality of all males as 1000, the report, compiled by Dr. John Tatham, classifies the mortality of various occupations as follows. In each table the most fatal callings come first, and the most long-lived last:—Twice average death-rate (1900-2200 deaths against 1000 for all workers).—General labourers, tin miners, costermongers, hawkers, inn and hotel servants. One and a half times average death-rate (1500-1900 deaths).—Innkeepers, publicans, copper miners, seamen, general shopkeepers, potters, dock labourers. One and a quarter times average death-rate (1250-1500 deaths).—Porters (not railway), brewers, chimney sweeps, bargemen, filemakers, musicians, glassmakers, coalheavers. Just over the average (1000-1250 deaths).—Lead miners, hairdressers, turners, cabmen, groomers, etc., butcher, cotton workers, plumber, painter, tailor, plasterer, tramway service, fishmonger, currier. Just under the average (900-1000 deaths).—Printer, commercial traveller, woolworker, shoemaker, law clerk, fisherman, tobacconist, cabinetmaker, physician, surgeon, saddler, fruiterer, quarrier, blacksmith, bookbinder, domestic servant, baker, commercial clerk, mason. Three-fourths average death-rate (650-900 deaths).—Miner, gasworker, jeweller, draper, artist, architect, carpenter, shipbuilder, railway guard, porter, civil service messengers, railway official, tanner, maltster, barrister, solicitor, ironmonger, platelayer, navvy, coal merchant, paper manufacturer, grocer, civil service officials, schoolmaster. Half average death-rate (500-650 deaths).—Brick manufacturer, farm labourer, railway engine-driver and stoker, farmer, gamekeeper, gardener, clergyman.

At a meeting of the Senate of London University, held on 22nd July, Professor Henry Alexander Miers, M.A., D.Sc., F.R.S., Fellow of Magdalen College, Oxford, and Waynflete Professor of Mineralogy in that University, was appointed to be Principal as from October 1st next, on the resignation of Sir Arthur Rücker, D.Sc., F.R.S. In addition to his professorship, Dr. Miers holds various administrative offices in

the University of Oxford, being a member of the Hebdomadal Council, a delegate of the Clarendon Press, a delegate for the inspection and examination of schools, and secretary to the delegates of the museum. The Hon. W. Pember Reeves, at present High Commissioner for the Dominion of New Zealand, was appointed to be director of the London School of Economics and Political Science as from October 1st next, on the resignation of Mr. H. J. Mackinder, M.A. Mr. Pember Reeves has been High Commissioner for New Zealand since 1905, and has taken a prominent part in the affairs of the Dominion. A member of the Senate of the University of London, he comes to his new position with a reputation for knowledge, capacity, and good service. Mr. Reeves has written much, his most important work being "State Experiments in Australia and New Zealand."

A largely-attended meeting of nurses and others interested was held on July 17th at the Medical Society's rooms, Chandos-street, Cavendish Square, in support of the movement for the State registration of trained nurses. A bill to achieve this object has already received second reading in the House of Lords. The meeting was called by the Society for the State registration of trained nurses, and was presided over by Miss Isla Stewart. The society asks that the term "trained nurse" shall have a definite meaning, and that anyone using it shall have satisfied an independent authority appointed by the State that he or she possesses the qualifications necessary to render him or her a safe attendant on the sick. The meeting unanimously passed the following resolutions:— "That this meeting has learned with deep satisfaction that the Nurses' Registration Bill has passed the second reading in the House of Lords, and begs to give its earnest support to the important principles embodied in the bill. This meeting is of opinion that the following provisions are indispensable to the efficient organisation of trained nursing by the State:—(1.) That a central governing body should be established upon which trained nurses have direct and adequate representation, and through which they may maintain high moral standards and professional efficiency. (2.) That before registration trained nurses should be examined and certified by a central and independent board. This meeting respectfully appeals to the Government to afford facilities for the consideration of a Nurses' Registration Bill in the House of Commons at the earliest possible date." "That in the opinion of this meeting a system of State registration of nurses, defining a minimum standard of training, to be followed by a central examination, conducted by an independent board, would be of especial value to nurses in the Poor Law Infirmary Training Schools, who have hitherto laboured at an undeserved disadvantage. Such a measure would tend to attract to this most important branch of the profession well-educated and suitable candidates, and would do much to ensure the proper nursing of the sick poor in these institutions."

The President of the Local Government Board has authorised, for the current year, the following researches in connection with the annual grant voted by Parliament in aid of scientific investigations concerning the causes and processes of disease:—1. A further inquiry by Dr. M. H. Gordon into the character and differential tests for the micro-organisms found in the throats of patients suffering from scarlet fever. 2. An investigation of protracted and recurrent infection in diphtheria. This will be undertaken by Dr. Theodore Thomson, Medical Inspector of the Board, and Dr. C. J. Thomas, assistant Medical Officer, London County Council (Education Committee). The bacteriological part of the investigation will be undertaken by the Lister

Institute. 3. An investigation of protracted and recurrent infection in enteric fever. This will be undertaken by Dr. Theodore Thomson, in conjunction with Dr. Hedingham, of the Lister Institute. 4. Investigations by Dr. W. G. Savage into the presence of paratyphoid bacilli in man, the differentiation of streptococci in goats, and the bacteriological measurement of pollution of milk. 5. A statement of the results of the bacteriological examination of over 7000 samples of milk from different parts of the country made by Professor Delepine. 6. An investigation into flies as carriers of disease by Dr. Copeman, F.R.S., Medical Inspector of the Board, with the co-operation of Professor Nuttall, F.R.S. 7. An inquiry into the condition of flock beddings by Dr. Farrar, a Medical Inspector of the Board. The bacteriology and biology of bedding (especially in relation to vermin), which will be undertaken in connection with this inquiry, will be superintended by Professor Nuttall. 8. A statistical inquiry into the social incidence of disease will also be begun; the prevalence of varicose veins and of hernia, under different social conditions, forming the first subject of inquiry under this head. This will be undertaken by Dr. Basil Cook.

The annual distribution of prizes to the students of the London School of Medicine for Women took place on July 2nd. Dr. Julia Cock, Dean of the School, occupied the chair, and said that the year just closed had been one of financial anxiety in spite of exceptionally generous benefactions. They still had to face a heavy debt and other difficulties arising from the fact that to make a technical school like this pay its own expenses was almost impossible. There had, however, been one pleasant feature in the past year, the Royal College of Physicians having decided to open its doors to women. This was a very great step forward, as everybody acquainted with the history of medicine in this country would admit. Whether the Royal College of Surgeons would join in it was likely to be known in a few days, the school having sent a petition on the subject to that body. Lady Grove presented the prizes, and commented with astonishment on the fact that there were still women archaic enough to prefer men to women doctors. Dr. Mary Scharlieb advised the students to remember that sympathy and tenderness were greater than science. When they became qualified practitioners, they must be women first and doctors afterwards.

Victoria.

Dr. James Jamieson—The Fight Against Tuberculosis—Emeritus Professors.

The decision of Dr. James Jamieson to retire at the end of the year from the Lectureship in Medicine in the University of Melbourne has been received with genuine regret amongst all sections of the profession. He has held the position for 30 years, during which the many generations of students who have come under his influence have felt for him the highest esteem and reverence. Though now not a young man, his personal influence for good was never stronger than it is at present. The punctilious conscientiousness of his work and his great literary power and artistic tastes have endeared him to all with whom he has come into contact. He has always been a most active member of the profession, upholding at all times its highest traditions and ideals. Whenever he spoke, whether in Senate or Faculty, in Association or Congress, he was always listened to with marked attention; and it is to be hoped and anticipated that for many years to come his voice will still be heard where the highest counsel is required in professional matters. His retirement

creates a gap in University circles which it will not be easy to fill. Dr. Jamieson has also resigned his position as honorary physician to the Alfred Hospital.

The fight against tuberculosis in this State has reached an important stage in the publication of a report of the sub-committee of the Municipal Tuberculosis Conference. This sub-committee has drawn up a scheme to provide accommodation for 500 cases of advanced consumption at a probable annual cost to the municipalities of £1100. The sub-committee realises that if the incidence of tuberculosis is to be lessened accommodation must be provided for the advanced cases which at present serve as foci of extensive infection. In the metropolitan area alone it is estimated that 300 beds will be required. At present the Austin Hospital provides for 100 advanced cases, and will still continue to do so. The sub-committee recommends that as a beginning 100 beds be provided, with provision for a larger number in the future. It is stated that the equivalent of one halfpenny in the £ of municipal valuations would yield a sum sufficient to pay for maintenance and liquidate within a few years the amount expended on buildings, and also provide a contingency fund for further extension. All these calculations are based upon the supposition that the Government would under the terms of the Health Act pay half of both the initial outlay and the amount required for maintenance. The sub-committee makes no recommendation as to sites for the proposed homes, preferring to leave consideration of these to the Government. Passing reference is made to the present utterly inadequate methods of inspection, a condition inseparable from the present system of inadequately remunerated medical officers of health who are also private practitioners.

The Committee of the Council of the University of Melbourne appointed to consider the appointment of Emeritus Professors has presented its report. It considers it desirable that when a professor retires from office, or is retired after reaching the age of 60, the Council should have the power by an absolute majority to appoint him an emeritus professor, and that such emeritus professor should be relieved of all duties and privileges beyond membership of the professional board and the faculties. The professional board, however, has decided against the appointment of emeritus professors if they are to retain their membership of the board and the respective faculties, as they consider that these privileges might interfere with the work and administration of the newly-appointed professors. The Council has postponed consideration of the reports until its next meeting at the end of the present month.

CHEMISTS AND PRESCRIPTIONS.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—Your article headed "Chemist and Prescriptions," published in your issue of 21st September, 1908, forces me to again write to you on a matter which has been brought before the medical practitioners on several occasions, and which was strongly advocated at the conference between your council and the council of this society.

You say that "no chemist should under any circumstances dispense a prescription presented by a customer unless that prescription bears the signature or the initials of some qualified practitioner, known either personally or by repute to the pharmacist."

Do you really mean that? Do you mean that a Broken Hill pharmacist shall not dispense the urgent

and necessary prescription written by a Sydney practitioner whom he does not know either personally or by repute, but whose name he can find on the register? The pharmacist who would refuse to dispense would not only be a very unwise man, but he would neglect his duty as a pharmacist. Fully 80 per cent. of all prescriptions are not signed in full by the practitioners who have written them. There is usually some sort of a sign underneath the prescription, which is expected to be taken as initials of a medical practitioner, but which, in very many cases, cannot possibly be interpreted into a name. On a former occasion I gave you an instance when a woman nearly lost her life owing to a practitioner not signing his name. It will happen to every practitioner that he will have to use any sort of paper to write a prescription on, a piece torn from an old newspaper for instance, and that does not matter either, but, at all events, the signature should be there. You will be aware that the telephone is made use of more and more for the purpose of giving a prescription to the pharmacist, and it is not always possible to be absolutely certain which practitioner is at the other end of the telephone. Shall the pharmacist refuse to dispense? A great many practitioners will acknowledge that they are sending prescriptions to pharmacists per telephone, without even confirming the message by sending a written prescription. I know pharmacists who write the word "telephone message" under such prescriptions in their prescription copy book, and you would be astonished if you saw the number of such telephonic prescriptions. No objections can be raised against it; in fact, the telephone is often a great blessing in urgent cases, but don't blame the pharmacist if things go wrong, and the message, through no fault of the pharmacist, is wrongly received.

It will be a splendid thing if the medical practitioner can be educated to sign his prescriptions with his name and not with initials, and in case he orders through the telephone to confirm that message by a written prescription at the earliest possible opportunity. It is not the pharmacist who is at fault in these matters, but it is the medical practitioner who still refuses to sign his prescriptions. You have no idea of the difficulty which practitioners cause by not writing their names. If the practice of signing the name in full be adopted, you will help your patients more than you ever expect and imagine.

The pharmacists, of course, gratefully and pleasantly acknowledge that there are doctors who sign their names in full.

Re the prescription mentioned in your article, you are evidently not acquainted with a certain phase of the matter. In reply to my enquiry, the pharmacist who dispensed the prescription writes to me: "I may say that nothing was said to let me know that the medicine was for any other person than a Mr. Jennings." He dispensed the medicine under the full understanding that a strong man would take it; nothing was said to make him imagine that the medicine was for a frail woman, and he cautioned the man when handing over the medicine.

I enclose *fac simile* of part of a prescription with so-called initials. This prescription was sent by a well known city pharmacist to the editor of the *Chemist and Druggist*, who published it in his journal from which I have cut it. Thanking you for your courtesy, I remain, yours faithfully,

A. FORSTER, Secretary,

Pharmaceutical Society of N.S.W.
Sydney, October 1st, 1908.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of September, 1908 :—Registered deaths in the metropolitan municipalities during September numbered 457. This figure has been obtained after distribution to their proper districts of deaths in general hospitals and hospitals for the insane, and is equal to an annual death rate of 9·64 per 1000 of the estimated population. When corrected by the inclusion of the metropolitan proportion of the deaths in the Parramatta, Rookwood and Liverpool Benevolent Asylums, this rate becomes 10·11 per 1000. Infectious diseases caused 21 deaths, 3 of which were due to scarlet fever, 5 to influenza, 4 to diphtheria, 2 to typhoid fever, 4 to cerebro-spinal fever, 1 to erysipelas, and 2 to puerperal fever. Diarrhoeal diseases (diarrhoea, dysentery and enteritis) caused 9 deaths, or 40 per cent. below the previous quinquennial average of deaths from these causes in September. Phthisis was responsible for 31 deaths and cancer for 32, both mortalities being rather below the average. Bright's disease with 35 deaths, and diseases of the heart and blood vessels (75 deaths) were rather more fatal than usual. Respiratory diseases caused an average mortality (71 deaths) for the month. Among infants under 1 year of age 76 deaths occurred. This figure corresponds to the very low infantile mortality rate of 60 per 1000 births. The principal causes of infantile mortality were—prematurity, 19 deaths; developmental diseases, 21 deaths; respiratory diseases, 12 deaths; diarrhoeal diseases, 5 deaths. The attacks of infectious diseases notified numbered 204, of which 127 were due to scarlet fever, 62 to diphtheria, and 17 to typhoid fever. No plague rats were caught during the month, nor did any case of plague occur in human beings. Within the city of Sydney 8 cases of pulmonary consumption were notified under the City Council's by-laws, and 6 dwellings were disinfected by the Council's staff after the death or removal of consumptive persons.

The Catchment Area.—At last meeting of the Water and Sewerage Board a report was received from the medical officer (Dr. Stokes) supporting the view of the ranger (Mr. McPherson) regarding the proposed construction by the Bulli Shire Council of a road from a bridge over Loddon River to Loddon Falls.

Dr. Stokes opposed the idea on the ground that it would be throwing the catchment area open to invasion. He said the board should take instant action to prevent encroachment by picnickers; the place should be closed as a picnic ground, despite probable local opposition. The source of his recommendation lay in the report of the ranger that picnic parties left paper food scraps and other rubbish at the spot, and he feared contamination of the water supply. The board agreed with the recommendation.

A Good Sanitary Service.—A sanitary pan and pedestal attracted much attention at the successful Local Government exhibition in the basement of the Town Hall recently. Its general adoption in the country districts, in hotels, private houses, and public institutions would do away with certain conditions which are a national reproach in some country districts. The policy of the Local Government Act of 1906, and the efforts of the Board of Health and of all sanitarians have been directed to the object of securing a change in the conditions referred to, and if such an invention as this came into general use it would remove the reproach which now exists.

Adulterated Foods.—At the Glebe Police Court recently, the inspector under the Board of Health for Leichhardt proceeded against a number of local shopkeepers for having sold him foods which were not of the nature, substance, or quality demanded. Three persons were fined £15 and £2 2s costs for having sold

Sydney Water Supply.—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, September, 1908 :—

Colour	..	..	..	22° Brown.
Clearness	..	..	..	Fair.
Odour	..	..	..	Nil.
Suspended matter	..	..	..	Very slight.
Total solids	..	..	..	8·2000
Chlorine	..	..	..	2·9500
Nitrogen as free ammonia	..	..	..	·0002
“ „ albuminoid ammonia	..	..	..	·0116
“ „ nitrites	..	..	..	·0000
“ „ nitrates	..	..	..	·0076
Oxygen absorbed in 4 hours	..	..	..	·1025
Permanent hardness	..	..	..	1·8
Total hardness	..	..	..	3·0

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during September, 1908 :—

Final Effluents from -	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test Seven days at 37° C
			Suspended Solids.	Chlorine.	Nitrogen as				Oxygen Absorbed	Albuminoid Ammonia.	Oxygen absorbed in Four hours.		
					Free Ammonia	Alb'min'id Ammonia.	Nitrites.	Nitrates					
Chatswood ..	.. Slight	Nil	1·74	12·8	1·060	·138	·016	·711	·513	89·2	87·5	No decomposition	
Folly Point..	.. „	Nil	1·94	8·8	1·280	·162	·016	·676	·645	67·0	71·5	„ „	
Balmoral ..	.. „	Nil	1·08	11·0	·525	·106	·013	1·487	5·29	89·3	85·9	„ „	

Note.—Irregularities in figures due to heavy rain during month.

vinegar which the Government Analyst certified was nothing more than diluted acetic acid with a little colouring matter. The sample submitted to the analyst contained 95·4 per cent. of water and 4·5 per cent. of acetic acid. Dr. Cooksey, of the Government Analyst's Department, stated that the standard fixed the way vinegar should be made, and also what vinegar was, and from the analysis made the sample submitted was not of that standard. Vinegar was a condiment. Its constituents were acid and water. The sample contained acetic acid and water, but it was lacking in certain other qualities and extractions, which vinegar when properly manufactured should contain. These qualities and extractions gave vinegar a quality which the sample submitted was lacking in. The quality wanting was body, flavour, and aroma. The sample was therefore a fraud as far as vinegar went, and was not up to the standard fixed. It was not, however, injurious to health in its present condition. It contained no sulphuric acid, arsenic, lead, or copper. Witness could not say how much this sample would cost to make, but it would be much less than lawful vinegar. The fact of selling it to the public constituted the fraud, for it was not vinegar in any way. — A shop-keeper of Leichhardt was charged with having, through his agent, sold coffee which was not of the nature, substance, or quality of the food demanded. Dr. Cooksey stated that the sample contained 50 per cent. of chicory. Coffee, he added, was worth four times as much as chicory, which was used as a flavouring, and made coffee stronger than it otherwise was. The inspector stated that he found pure coffee marked on the tin from which the sample purchased was taken. Witness asked for pure coffee, and was charged 1s 6d a lb. for it. The defendant's son, who managed the business, stated that the words pure coffee were not written on the tin from which the sample was taken. For pure coffee he charged 1s 10d a lb. Defendant was fined £10 and £2 8s costs, in default imprisonment for two months. Fourteen days were allowed to pay on finding security.

Victoria.

Pure Milk.—The Board of Health some time ago made a regulation under which the farmer must seal the milk cans. Dr. Brown, of the Department of Agriculture, states that an apparatus has been devised by the use of which, if the milk is pure when placed in the can by the farmer, it will come out pure when the carter draws it out to deliver to the consumer. The milk will not flow except when connection is made between the can and the distributing vessel. By this means, Dr. Brown states, the adulteration would be narrowed down to the dairy farmer or the driver of the delivery cart. In view of the persistent adulteration of milk by dairymen, despite repeated fines, the Cabinet has decided to propose an amendment of the law that will deal effectively with such offenders. A bill will be introduced to provide that in future if any dairyman is convicted of two offences the registration of his dairy under the Milk Act will be cancelled, and he will be disqualified from obtaining a future license.

Food Adulteration.—In its administration of the Pure Foods Act the City Council finds that there are instances of apparent ignorance or misapprehension in regard to the provisions of the Act. The council is prosecuting in every instance where an offence is detected, and the council draws the attention of vendors of milk or other foods to the following provisions of the Act:—"Any person who manufactures, prepares, or sells any article of food in contravention of the Act, or is

guilty of any offence against the Act, for which a penalty is not expressly provided, will, upon conviction, be liable for the first offence to a penalty of not more than £20, for a second offence not less than £5 or more than £50, and for any subsequent offence not less than £10 or more than £100. In the case of a person being convicted of a third or subsequent offence, if, in the opinion of the court, the offence was committed by the personal act, default or culpable negligence of the accused, he may be imprisoned, with or without hard labour, for any period not exceeding three months. The Act also provides that, if the court so direct, the name of any person convicted for an offence against the Health Acts relating to the sale of any article of food, etc., may be published in the 'Government Gazette.' In the case of a second or subsequent conviction a copy of such notification shall be published in the 'Government Gazette,' and may, if the court so direct, be also published in any newspaper circulating in any part of Victoria."

Queensland.

Brisbane Milk Supply.—In reply to a deputation which waited upon the Minister for Agriculture some time ago and suggested that a Government depôt, similar to the Fish Markets, be established for the inspection and distribution of the whole of the milk supply, Mr. O'Sullivan said he had gone into the matter with the Home Secretary, Dr. Ham, Health Commissioner, and Mr. Brunnich, Agricultural Chemist, and he had also paid a visit of inspection to the Fish Markets. He concluded that it would not be advisable to establish such a depôt as had been suggested. In the first place, it had to be remembered that milk had to be produced under special conditions, which could not be observed under the system suggested, and further, so far as the testing was concerned, the examination of milk would not show bacteriological results until over 12 hours after it came from the cow. Again, the small dairymen would not be able to carry on their business under this central depôt system, and finally, tests at a central depôt would not prevent subsequent adulteration. An alternative suggestion of the deputation had been that a private company should be formed to establish a depôt, and that all milk sold within a given area should be compulsorily distributed through that depôt. This would create a monopoly, and so far as enquiries could disclose there was certainly no depôt on the lines suggested anywhere in existence. It was therefore thought desirable that any central milk depôts should be left entirely to the control of private enterprise, and that the Government should encourage such enterprise for the selling of pure milk by the following means:—(1) Strict and impartial supervision of all dairies, under the provisions of the Dairy Produce Act, and the registration of all dairies. It is considered, in the light of recent disclosures, that the staff of inspectors under the Act is not large enough, and the department will recommend an increase in the staff, and also that an inspection at least once a month be made compulsory. (2) The registration of all milk-sellers and distributors. The Minister said he would recommend a regulation making it compulsory that no milk shall be sold except by licensed sellers or distributors, a breach of this to mean a cancellation of the right to sell milk. In this connection it is also considered advisable that shops where milk is sold shall be inspected by the Health Department. The Home Secretary's department is considering the question also of making it illegal for any dairy to be established within the municipality of Brisbane. It is said

that there are dairy herds kept on 16 perch allotments. If the Home Department carries this proposal into effect no dairy within the municipal area of Brisbane will be registered.

Bubonic Plague.—Dr. B. B. Ham, Commissioner of Public Health, reports for the four weeks ending October 10th 1908:—*Brisbane*.—No case of plague in man has occurred during the period. Plague in rodents. —1574 rats and 269 mice destroyed, 1195 rats and 268 mice examined, 1 rat infected. An infected rat was found on September 15th in Queen-street, city.

South Australia.

Clean Glasses.—The local Board of Health of the municipal corporation of the city of Adelaide, by virtue of the Health Act, 1898, has made the following regulation:—No person shall sell liquid food or liquid refreshments, or cause the same to be served, in any glass tumbler or other vessel to any person at or in any licensed premises, or bar, or counter, or refreshment stall, or booth, or other place where tumblers or drinking vessels are used in common, unless such tumbler or vessel has been thoroughly cleansed since the last occasion of its use. In any licensed premises where clean water under pressure is available, or where it can readily be made available, the cleansing shall be carried out by means of clean running water. Every person who shall offend against any of the provisions of the above regulation shall, on conviction, for every such offence be liable to a penalty of not exceeding £20; and in case of a continuing offence, to a further penalty of £2 for each day that the offence is continued.

West Australia.

The Chief Inspector of the Perth Local Board of Health served an order on an occupier to cease using an unsuitable shed as a stable, on the ground that when so used the shed became a nuisance. The legality of this order was tested, but the order was upheld. Recently the Government decided that the sanitary removal services in all Government buildings throughout the State should be placed under the control of the Health Department. Previously metropolitan services were under the Department of Public Works, and country services were carried out in a variety of ways. Considerable official discussion has taken place recently between the Public Works Department and the Central Board of Health on the question of the retention or abolition of the intercepting trap in house installations. The sewerage system in Perth is now almost completed, as far as street drains and sewers are concerned, but no house connections have been made. The engineers of the Works Department are of the opinion that the intercepting trap may be omitted and the house vent pipes made also the vent pipes for the sewers. Then Central Board of Health, after careful consideration of the subject, came to the conclusion that for general uses the principle could not be admitted, but in some exceptional instances the intercepting trap might be omitted. —On September 27th the French mail steamer "Oceanien" arrived from Colombo. At that port there had been put ashore from the steamer a case of smallpox. The passengers who were landing at Fremantle were all quarantined and vaccinated, the vessel was fumigated and contact with the shore restricted during her stay. Up till the present no manifestation of smallpox has occurred among the passengers who landed.

Sanitary Milk.

FROM the *Brisbane Courier* we learn that the National Association offered special prizes in connection with the recent show for the best and purest samples of dairy milk, as supplied to the public of Brisbane. The samples were to be taken from the milk cart by a dairy inspector on various days extending over a period of six weeks, commencing on June 24th and finishing on August 5th. It was arranged that the samples would be analysed chemically and bacteriologically, and points awarded on the following scale:—Flavour, 15; composition, 30; bacteria, 25; acidity, 5; utensils, such as cans, dippers, etc., 25 points. As practically every member of the community is a milk consumer, the result of the competition was eagerly awaited, and interest was accentuated from the fact that only six of all the metropolitan dairymen entered for the competition. Difficulty was, however, encountered in securing particulars of the results, and it was ascertained that the reports of Messrs. Pound and Brunnich, bacteriological and chemical experts, contained particulars of such an important character that a special meeting of the National Association Council was held to consider them. The Council then decided that instead of at once making the reports public they should be forwarded to Dr. Ham, Commissioner of Public Health, for his consideration. Dr. Ham has now furnished the following report to the National Association Council:—I have the honour to furnish you, in answer to the request of the Council, with the following memorandum on the sanitary milk competition held in connection with the recent show. I have carefully examined the tables of results, and the reports of Messrs. Pound and Brunnich in connection therewith. From a careful study of this data the following conclusions have been drawn:—The samples submitted show an improvement in fats, and solids, not fat, on those tables at a similar competition of last year. It is interesting and satisfactory to note that of the 24 samples (4 samples each of the 6 competitors) taken this year not one fell below the legal chemical standard of 3 per cent. of milk fat, while seven were over 5, and one 6 per cent. The average was about 4.5 per cent.; a matter of congratulation to the milk farmers, and a result in accordance with that obtained by the Government Analyst in his examination of several hundred samples during the past year. The solids not fat, however, were in the majority of cases low, and show that water had been added to the samples. In fact, with the exception of the samples marked C, and E, all the milks were watered, and for this reason I beg to advise that exhibitors A, B, D, and F be disqualified. The watering of milk is a practice which should be vigorously condemned and controlled by rigorous enforcement of the law, for the reason that such practice is not only fraudulent, but a serious menace to the health of the community, by reason of the fact that the milk may become infected with pathogenic organisms as the result of the addition of polluted water. In this respect the addition of water is probably the most dangerous adulterant of milk. The bacteriological report on the samples shows that no less than 13 samples contained water organisms, and this number agrees with the samples found to have "added water" in the chemical report. The bacteriological examination of the samples gives a clue to the cleanness of the methods employed, the temperature, and the age of the milks submitted; the examination of bacteria in milk being one of the readiest methods of determining the general sanitary quality of the market milk supply. Taking the standard of 100,000 bacteria per cubic centimetre it will be

found that only 8 samples exceed this number; one sample containing 581,256 bacteria per c.c., one 684,352, and one 633,947 per c.c. These species of bacteria, however, are non-pathogenic, and the high numbers in these instances have but a limited significance. The presence of bacillus coli, however, in eight samples is presumptive evidence of grosser contamination, and when it is considered how filthily many cows are kept, it is not to be wondered that intestinal organisms find their way to milk. The four samples of exhibitor E, so far as chemical analysis is concerned, are of excellent quality. The milk fats in all four samples are high—from 4.2 to 5.2 per cent.; the solids not fat are also high, and there is no added water to the samples. It is somewhat incongruous, therefore, to find, from the bacteriological report, that all four samples contained bacillus coli. Probably these organisms were introduced by the careless handling of the milk or else the milk-receiving utensils had been washed with dirty water. The presence of these organisms should disqualify exhibitor E, and I beg to recommend accordingly. There only remains exhibitor C, and the competition, in my opinion, is therefore narrowed down to the consideration of the samples of this one competitor. All four samples are of exceptional quality. The fat, as well as the solids not fat, and the nitrogen are all high, and no water has been added to any of the samples. The specimens contain no bacillus coli, gas, moulds, or water organisms, and, though two of the samples contain over 100,000 non-pathogenic bacteria per c.c., the other two samples contain only 2,856 and 3,468 bacteria per c.c. respectively. The food value of these samples is high, and both judges have rightly awarded the maximum 30 points for "composition." The total points obtained by this exhibitor, 92. I beg to advise, therefore, that exhibitor C be awarded the first prize as well as the special prize, and that the remaining five competitors—A, B, D, E, and F—be disqualified for the reasons mentioned above. With this judgment both Messrs. Pound and Brunnich concur.—I have the honour, etc., B. BURNETT HAM, M.D., D.P.H., Commissioner of Public Health.

MEDICAL MATTERS IN PARLIAMENT.

New South Wales.

The Freeman and Wallace Case.—In the Legislative Assembly last month, Mr. Fitzpatrick asked whether the attention of the Premier had been drawn to the comments of the presiding Judge in the *Grimson v. Freeman and Wallace* case, and to the expression of opinion by the jury that the time had come when steps should be taken by legislation or otherwise to put a stop to the system of quackery in operation to such a large extent in New South Wales to-day. The Premier stated that he had seen the report. It disclosed a serious state of affairs, and the Government would give the matter consideration at an early date.

Inebriates Act.—In reply to Mr. O'Sullivan, in the Legislative Assembly, it was stated that the area of land set apart in Darlinghurst Gaol for the reception of chronic drunkards committed under the Inebriates Act is nearly an acre. At the Shaftesbury Institution, near South Head, the area set apart for the same purpose is 11 acres 1 rood 2 perches. The question of establishing another institution for the treatment of male inebriates is, so the Premier said, at present under consideration. As this method of treatment, he added, is experimental, progress must be gradual, but the success so far achieved justifies the system being extended on a large scale.

Tasmania.

Vaccination and Quality of Lymph.—In the Tasmanian Parliament last month, Mr. J. D. Wood asked the Chief Secretary:—(1) What sum of money was paid during the year ending June 30th, 1908, to vaccinators, in accordance with the provisions of section 6 of the Vaccination Act, 1898? (2) How many children were born in Tasmania during the above-mentioned period? (3) How many certificates that vaccination had been successfully performed were received by registrars of births during the period above-mentioned? (4) How many declarations were during that period made by parents in accordance with the provisions of section 8 of the above-mentioned Act? (5) What quantity of calf lymph has the Chief Health Officer in his possession, and what quantity of it did he supply during the above-mentioned period to vaccinators, and to what number of vaccinators? (6) From whom did the Chief Health Officer obtain the calf lymph now in his possession or supplied by him to vaccinators? (7) What information did he receive as to the ingredients of the calf lymph, or as to its having been analysed in order to ascertain that it contained the germs of no other disease than variola vaccinia, or as to the matter injected into the calf from which the lymph was obtained, or whether that matter was originally obtained from a human subject or from an animal? (8) Is the calf lymph glycerinated or not? Is the Chief Health Officer of the opinion of Sir George Buchanan, one of the medical heads of the Local Government Board, who called the mixture of glycerine with lymph "a preposterous adulteration," or of that of later authorities, who hold that glycerine must be mixed with the lymph to kill the germs of erysipelas? And has he taken any steps to ensure that the lymph shall be either glycerinated or unglycerinated? (9) Can the Chief Health Officer guarantee that the calf lymph in his possession, or which has been supplied by him to vaccinators, does not, or did not, contain the germs of any other disease than variola vaccinia? Or does he agree with the medical authorities of the Local Government Board that "it is impossible to guarantee the lymph sent out," or to detect the presence of syphilis, if the germs of it are contained in the lymph? (10) Is the Chief Health Officer aware of the number of punctures made by vaccinators when performing the operation of vaccination, or whether there is any uniformity of practice among them in this matter? (11) Is he of the opinion of Jenner that one well-defined vaccination mark is sufficient, or of that of the many later advocates of the practice of vaccination that there must be several marks; and if he is of the latter opinion, how many marks does he consider that there should be, and has he offered any advice or suggestions to vaccinators as to the number of punctures to be made? The Premier: First question, nil; No. 2, 5449; 3, nil; 4, none have been received by the Department of Public Health; 5, 500 tubes in cold storage, 253 tubes in stock as from July 1st, 1907; 118 of the latter have been distributed to 10 different medical practitioners, and 4 to the surgeon of H.M.S. Pioneer; 6, Dr. Robert Nairn, superintendent of the Vaccine Institute, Hastings, Hawkes Bay, New Zealand; 7, 8, and 9, the lymph is glycerinated calf lymph. The Chief Health Officer is satisfied as to the freedom of the present supply from all reasonable risks of carrying disease. 10 and 11, the regulations under the Vaccination Act, 1898, require four punctures and insertions to be made in every case. These regulations govern the procedure of public vaccination. It is not the practice to supply information involving technical opinions from professional officers in answer to questions by individual members.

Medico-Ethical and Medico-Legal.

ACTION AGAINST THE FREEMAN AND WALLACE MEDICAL INSTITUTE.

In the Supreme Court, Sydney, before Mr. Justice Cohen and a jury of four, an action was brought by Robert Grimson, a farmer, residing near Molong, N.S.W., against Howard Freeman and Dr. Richard Wallace. We take the following report of the case from the *Sydney Morning Herald*:—Plaintiff's counsel, in opening the case, said that plaintiff is a farmer residing at Yullundry, near Molong, and in September last, when he was about 20 years of age, he found himself suffering from the effects of an accident while carrying on his avocation as a boundary rider, and was under the impression that he was suffering from a rupture. He wrote to defendants about it, and in reply they said they had been immeasurably successful in such injuries. In compliance with their request he filled in answers to certain questions, and sent them £1 for a diagnostic fee. They offered also to supply a truss for £2 2s. Defendants forwarded to him a book, in which it was stated that £100,000 had been spent in founding the institute and making it known, and that the firm stood under a bond of £5000 to cure every case submitted. Plaintiff subsequently came to Sydney and underwent treatment at the Freeman and Wallace institute, from October till February, and afterwards consulted a doctor in the city, who, according to the plaintiff, stated that the case was a simple one. He performed an operation in a private hospital upon the plaintiff, who was able to leave the hospital a week afterwards.

Plaintiff, in his evidence, said that when he came down to Sydney and saw defendants they told him they could not treat him for less than £25, as his case was worse than they had thought when they first wrote to him. Then he got some medicine without payment from the drug store to which he was sent. During defendants' treatment he was given pills, lotion, and ointment. In December he asked the defendants for a guarantee, and had a lot of trouble to get it. He made payments as he went along, and continued to visit the establishment until February, when he complained that instead of feeling better he felt worse. The reply he received was that "we can only do our best for you," and with that he received a prescription. He again got some medicine from the drug store, and after taking it he never went to defendants again. He suffered pain all the time he was taking defendant's medicine, could not sleep, and did no work. In February he left Freeman and Wallace and went to Dr. Sinclair, who cured him; and after resting for two weeks he went back to his home in the country, and shortly afterwards resumed his work. He paid Dr. Sinclair £10 10s for the operation.

After further evidence, the plaintiff's case closed, and counsel for defendants called no evidence in reply, but applied for a nonsuit, which was refused. His Honor then summed up as follows:—His Honor said that before he proceeded to deal with the facts of the case he desired to make a few observations. "The atmosphere of our Courts of Justice," he said, "should always be calm and sober. This is the atmosphere in which justice can be best administered. But there are occasions when, notwithstanding one's best efforts to maintain an undisturbed calmness, feelings of abhorrence arise. It may be that in using these words, I am using words not strictly apposite to a Judge of a Court of Justice. But I think there are occasions when in the public interest, however strong the desire of a Judge may be to preserve a mind truly undisturbed, he should

give fairly full expression to his feelings. I think this is an occasion when the public interest calls for a frank, outspoken opinion upon the methods adopted at this institute by those concerned in its management. For, I may say, cruel cunning, unmeasured audacity, and hypocritical pretence, I doubt whether the courts of this colony disclose a case to which these epithets more justly apply. It is a strong illustration of 'man's inhumanity to man.' It shows how the craft and cunning of designing men, in their haste and hunger for money, can set at nought the feelings and sufferings of their fellow men, no matter what sacrifice may be involved in their machinations. The circumstances of this case show to us human nature in one of its worst forms. The whole atmosphere of the institution, I may say, reeks with wickedness. It is only men with callous dispositions, hearts of stone, steeled perhaps by their hunger for money, who could trade so upon their fellow men. When I call your attention to a few things you will be satisfied that the observations I have made, no matter how strong, are fully justified. In the minds of some men they may be thought to fall far short of the demerits of this particular case. But I will invite you, notwithstanding the enormities of the case, which are absolutely inexcusable, to deal with this case simply upon its merits."

His Honor then read the first count of the declaration, which charged defendants with negligence. The defendants, he said, were only required to apply reasonable skill, not to cure absolutely. The second count was on the guarantee. The defendants pleaded the condition that the plaintiff was to follow out their directions faithfully; they also pleaded that they were not employed, did not so agree, and other defences. As to the distinction between the defendants, Howard Freeman admitted his liability if there were want of skill, whereas Dr. Richard Wallace said he had nothing whatever to do with the institute, and that the only person liable was Howard Freeman. In August, 1906, Richard Wallace had apparently severed his connection with the institute. But plaintiff said it was immaterial to him whether he was a partner actually or not. All he knew was that it was held out to him that they were partners. Gross frauds might be perpetrated on the public if a man were allowed thus to appear to the public as a partner in a firm, and then, when someone was induced to deal with the firm, to turn round and say: "As a matter of fact, I was not a member." Plaintiff said no steps were taken by Richard Wallace to prohibit the use of documents with his name on them. The jury might infer that these documents were used with his assent. It was improbable, he imagined, that the stock of paper would be torn up. There was evidence for the jury whether he allowed himself to be held out. The case disclosed a remarkable degree of cunning. On all these forms they found Dr. Richard Wallace's name printed; Samuel L. Wallace's name was signed to the letter. Then there was the name "Dr. Wallace" there, not "Richard" or "Samuel." If Dr. Samuel Wallace were sued, the plaintiff might be confronted with these documents, and told that Richard Wallace was the partner; or if he sued Richard Wallace, that Samuel was the partner. The correspondence could be played off, if the defendants wished to play it off, in this way. "That is a double meaning which is worthy of the institute with which we have to deal," said the Judge.

His Honor then went into the history of the case. He said that plaintiff, who had suffered an injury about a year before, and had gone to Dr. Veech finally, on the advice of a friend, wrote to the defendants, Freeman

and Wallace. They replied, saying, amongst other things, that they had been immeasurably successful in all cases of that nature which they had undertaken, and enclosing a list of questions asking for particulars for diagnosis to be sent, together with a fee of £1. The letter said that they felt sure plaintiff realised the gravity of his case, and there was no occasion for them to impress upon him the advisability of giving this most important matter his immediate attention. They were beginning, said his Honor, at the outset, to work on the fears of this young man. He answered that he had made up his mind to see the best they could do for him, giving details of his trouble.

His Honor then dealt with the answers sent by defendants to plaintiff's letters. "To show the deceit of these people by way of catching the unwary and credulous, who have not time to think deeply," he said, "how are they cajoled and lured on to this spider's nest, take this statement printed at the top of their paper:—'For information as to our business or professional standing and integrity we refer to all mercantile agencies, banks, and warehouses in Sydney.'"

"Can you conceive," added his Honor, "anything more gross and wicked to give effect to the iniquitous aims and ends of these people. I wonder how many banks would allow these people to refer to them for a recommendation; how many respectable mercantile men would do so? It is the way they cajole the people."

The public did not know, said his Honor, what went on inside the walls of these institutions. Another piece of this deceit was the advice given in the documents that, to ensure prompt receipt and earliest attention, the recipient was to address his reply to the secretary, and not to any other member of the staff; and that the note sent in payment should be made payable to another name. The unfortunate young man replied, sending £1 for the diagnostic fee, continued his Honor. Before coming to the next letter from defendants, he touched on the book published by them. The qualifications of Dr. Wallace were given at great length. Amongst other titles, he was said to be "late of the medical staff of the British army." "Whilst I am talking about the book," said his Honor, "is it not ludicrous that when a man gets documents like this, which bring to his attention time after time the name of Richard Wallace, he is to search through a book of 500 pages to see whether Richard Wallace or Samuel Wallace has treated him? The book says that the institute is controlled by one supreme head. It says: To one direct supervision is the institute and all its branches subject; and that the organising brain is found in the person of the director, Mr. Howard Freeman, who, besides being a medical specialist of considerable fame, is an expert in medical electricity. Howard Freeman," said his Honor, "had not been in Sydney for two years. It was his organising brain that controlled all the institute. In a way it out-Herods Herod!"

Mr. Justice Cohen then came to the letter from the defendants to plaintiff, which he called the "stock" letter, because, he said, the first three pages of it were pages not written specially for plaintiff. They were kept in stock to send to anyone. Only the fourth page was written specially to plaintiff; but he said that to give it an air of having all been written for him, the word "immediate," which was the last on page 3, had been continued by adding "—ly" to it on page 4. From the first part of the letter, his Honor said, they would see how cruel and heartless it was. He then read the letter:—

"Mr. R. Grimson.

"24/9/07.

"Dear Sir,—Replying to your communication which reached us by yesterday's mail, enclosing answers given

to the best of your knowledge concerning your condition and health, we must inform you that without doubt yours is decidedly a very complicated case, and the ailments in evidence therein include many deep-seated and obscure symptoms, which severally and collectively have weakened and debilitated your system to such an extent that a comparatively long time must elapse before your complaints can be thoroughly cured. We may say that had you consulted us in the initial stages of your ailment, not only would the task of restoration have been considerably easier, but the matter of expense would also have been much less. Notwithstanding what we may hereinafter say, we must certainly tell you that yours is not the worst case we have had to deal with during our 35 years' practice as specialists in private and nervous complaints. But still the severity thereof is sufficient to demand immediate attention. As surely as constant dripping wears away a stone, so surely your ailments will, if left unchecked, bring about your mental and bodily destruction."

If it were a word suitable for these courts I might say this was devilish, interposed his Honor. He then read on:—

"Deadly diseases, especially such as the ailments you are beset with, are very rapid in their action; and were we to disclose to you the particulars of many cases on our books, which through procrastination were allowed to run unchecked for some time before the sufferers took competent treatment, you would not wonder that we always make it a point to urge upon all sufferers the absolute necessity for prompt action where their health is at stake."

After describing certain symptoms, the letter went on to state that the particular affection from which the plaintiff was supposed to be suffering was always accompanied by a corresponding failure of nerve force, and the spinal column, directly connected with the brain, was often affected to such a degree that, in 90 per cent. of the cases left unattended, the sufferer eventually became a victim of brain collapse, or filled a premature grave. "He has insanity forecast him," said his Honor, "physical decay, ultimately the grave." Amongst other statements, the letter went on:—

"Your case calls for the skill of a clever and expert specialist, and is not one where the aid of an ordinary general medical practitioner would prove of much value. The latter is often jack of all trades in the treatment of diseases; and while he may be very clever in treating ordinary cases within the scope of his everyday practice, yet where there are specific troubles to combat, as in your case, the special knowledge possessed by the specialist, as the result of many years' experience, is what is absolutely required. We estimate after careful and considerable thought that it will take at least from four to five months before we can have you thoroughly cured; and our fees for the treatment and the guaranteed cure will be £24, less the £1 paid."

After warning him that in a short time his troubles might arrive at an incurable form of debilitation and exhaustion, and leave him a complete derelict on the water of life, the letter went on to deal with his particular case, and to impress upon him the sad nature of his trouble. If he failed to seize the golden opportunity held out to him his case would soon become incurable.

Commenting on the way in which page 3 of the letter was joined to page 4, his Honor said: "Unless it had been elicited in evidence that these were their stock sheets, you might imagine that it was a written letter from first to last. They are stock sheets, sent—one might think—to all persons who apply to them, to arouse their terrors, get them into their clutches, and obtain their money. Plaintiff came to Sydney," continued his

Honor, "and was attended to by these people; but could not say whether one of them was Dr. Richard Wallace or not. As for the alleged scene with Dr. Wallace, in the financier's office in Elizabeth-street, he could not see that Dr. Wallace had made any admission of liability there. He had been served with the writ; and if he was not the proper defendant he might probably say he would make plaintiff sweat for suing him." Touching on certain documents, his Honor said: "These deplorable messages were apparently sent to 570,000 people."

Having dealt generally with the case he would now bring the minds of the jury to the real issues they had to try, and then get them to answer a few questions. As to the parties, they should understand that the defences raised by the two defendants were different in this respect:—Freeman said: "I admit I am Freeman and Wallace; and, therefore, if there is any wrong done by that firm, I am liable." As to what Wallace said, he proposed to deal with that specifically later on.

Then, as to the claim. Under the first count of the declaration, what was complained of by the plaintiff was that reasonable care and skill were not used. Was he treated with reasonable care? If he were not, the plaintiff was entitled to a verdict against Freeman, at any rate. If reasonable care was employed they must find a verdict for the defendant.

The second count was based on an agreement that the defendants would cure the plaintiff of his ailment, provided he followed out their directions. As to that he would ask them to say: Did the plaintiff continue the treatment at the institute for a reasonable time? If not, he failed. If the time was reasonable there was the further question: Did he follow out the orders and directions given to him, and use the treatment prescribed? If he did, he succeeded; if not, he failed. If, in short, they found that the plaintiff did continue the treatment for a reasonable time, and followed the orders and directions, and used the treatment prescribed, he was entitled to a verdict, at least against Freeman.

Now they came to what Wallace said. He said: "I was not a partner, and cannot be liable. Not only was I not a partner in fact, but I was never held out to the plaintiff as a partner, so as to bind me as a partner." He would ask the jury to answer these questions about Richard Wallace. Was Richard Wallace in fact a partner with Freeman when the arrangement was made with plaintiff for his treatment? As to that, there was the evidence of Cole, that up to August, 1906, Richard Wallace "was the Wallace of Freeman and Wallace."

Mr. Breckenridge: There is no evidence he was a partner, your Honor.

His Honor: "He was the Wallace of Freeman and Wallace." Those were the words. It was a matter for the jury whether they inferred from that that he was a partner or not. Then they had the advertisement in the *Daily Telegraph* of September 8th, in which Richard Wallace said he had resigned his position as physician-in-chief, and on his return to Sydney would notify his location. His contention was that he never was a partner. He did not say he had ceased to be a partner. At least he never came into court to say so. He had not been in the box. Supposing he were a partner, the mere fact of his notifying the resignation of his position as physician-in-chief was still compatible with his being a partner. A man might advertise: "I have ceased to be manager of this particular business." But that seemed, to his Honor, compatible with his being either a partner or not a partner. Finally, in 1903, the firm of Freeman and Wallace was registered as consisting of

Howard Freeman alone. There was all this evidence before the jury for them to consider as to whether or not Wallace was in fact a partner of Freeman.

Next as to whether he was held out as partner. Assuming that they came to the conclusion that he was not then a partner, did Richard Wallace represent himself to the plaintiff by one word spoken as being a partner to Freeman? There was no evidence that he ever spoke a word to the plaintiff to induce him to enter into this agreement. The plaintiff did not even identify Richard Wallace as one of the men who had treated him. As to whether he held himself out as partner by his conduct, his own personal conduct towards the plaintiff—if they answered that in the negative, they had then to answer what seemed to his Honor the strongest evidence against the defendant Wallace. Did he knowingly suffer himself to be represented to the plaintiff as a partner? There was no need, said his Honor, to repeat the evidence. Shortly, it was that up to August, 1906, when Richard Wallace ceased to be connected with the institute, those various letter forms, with his name and photograph on them, had been in use, and had been in use with the knowledge of Richard Wallace. It was for the jury to say whether it was a reasonable thing to infer that Wallace knew that the stock of forms remained for use in the business, but did not know or believe that those forms would continue to be used; and, if he did, whether they continued to be used. It was not necessary for them to say that he knew that these forms specifically would be sent to the plaintiff, so long as he knew they would be in general use. They might come to the hands of one person, and that person might act on the representations made in these forms. That would be quite sufficient evidence for the jury to determine whether he suffered himself to be represented as a partner of Freeman.

If he did represent himself as Freeman's partner, the jury should treat him in exactly the same way as Freeman. For instance, if they thought the plaintiff was treated with proper care and skill they should give a verdict for Wallace the same as for Freeman; if not, they should give a verdict against them both, and so on.

Assuming that they might come to the conclusion that the plaintiff was entitled to damages, the ground of damages in the first count was that he was greatly injured in health, and underwent long and continued suffering owing to the defendants' negligence; that he was prevented from following his business, and was put to great expense. He paid Dr. Sinclair 10 guineas, paid 18 weeks' board, and private hospital fee, lost 18 weeks' wages. If the jury thought the treatment by defendants was valueless they could take into consideration the £24 paid to them. It would make £84 6s altogether. From that it was only fair that they could deduct £20, which he received from his lodge for expenses. That would make £64 6s. As for pain and suffering, if they could not put them quite as definitely as the other expenses into pounds, shillings, and pence, they could give him reasonable compensation. It was a matter entirely for them. That, he thought, was all the damage. If they found for plaintiff, and thought Freeman only was liable, they should bring in a verdict for damages against Freeman only; if they thought both Freeman and Wallace were liable they should bring in a verdict for the plaintiff generally.

THE VERDICT.

After another short retirement the jury brought in a verdict of £450 for the plaintiff. The questions were answered as follows:—

Under first count: Was the plaintiff treated with a reasonable and proper degree of care and skill?—No.

Under the second count: Did the plaintiff continue the treatment of the institute for a reasonable time?—Yes. Did he follow out the orders and directions given to him, and use the treatment prescribed?—Yes.

Under both counts: Was Richard Wallace in fact a partner with Freeman when the arrangement was made with plaintiff for his treatment?—The jury believe he was. Did Richard Wallace represent himself by—(1) Words spoken or written?—Not answered. (2) Conduct?—Yes, by conduct. Or (3) Knowingly suffer himself to be represented to the plaintiff as a partner of Freeman?—Yes.

RIDER OF THE JURY.

The jury added a rider:—

The jury are of very strong opinion that measures should be taken by legislation or otherwise to suppress all such pernicious institutions as the one in question.

The Judge on reading this rider said: "It is a rider which will commend itself to every person in the country, except, perhaps, those who are concerned in this particular business, or others of the same type."

Medical Registration in Tasmania

Before the Full Court Mr. Herbert Nicholls moved for a rule *nisi* directed to the present members of the court of medical examiners to show cause why a writ of *mandamus* should not be issued directing them to grant a certificate to Dr. Gould under section 3 to Act. Mr. Nicholls read certain documents in which it was said that Dr. Gould had entered the Boston University in October, 1901. He was returned on a four-years' course, which comprised 46 subjects, providing a full medical education. In the month of June, 1905, a degree of doctor of medicine was conferred on him. Dr. Gould then came out to Melbourne and acted as a resident medical officer at the Homœopathic Hospital, Melbourne. He was registered by the Medical Board in Victoria, which entitled him to practise as a doctor of medicine. The Chief Justice said they (the Full Court) would not go behind the diploma. They had no power to question the value of the degree. The whole question was whether the Act contemplated the recognition of foreign universities.

After lengthy argument the Chief Justice, in giving judgment, said the court was unable to give section 3 of the Act the interpretation for which Mr. Nicholls had contended. In the language of Lord Westbury, a British statute must be considered as legislation for British subjects only, unless a wider application was expressed. Adopting that language, they said that it was a Tasmanian statute, and according to the primary and fundamental rules, it could only operate within territorial limits, except so far as there was any intention that it should extend beyond them; that was to say that a Tasmanian piece of legislation did not contemplate legislating for the rights and liberties of foreigners. Dr. Gould came with a diploma from the University of Boston, and it was not for the court to appraise the value of it. They had to endeavour to find out what was the intention of the Legislature in that third section of the Act, and they found that it was intended to operate as to a doctor of medicine of some university. At the date of the passing of the Act there was no university in Tasmania, so the legislators evidently had in their minds universities outside our territorial limits, but they were not necessarily forced to the conclusion that the Act had a universal application, for then inconvenient results might follow. That would not be a reasonable interpretation, and the court must come to the conclusion that the section was intended to operate in favour of medical men who were qualified in the United Kingdom. The Act certainly required

amendment, and they (their Honors) recommended that this should be done. As to Mr. Nicholls' contention that they should recognise the principle of comity of nations in the matter, the United States did not go on that principle. They found that in the State of Massachusetts, whence the present applicant came, he would not be qualified to practice upon the diploma from Boston University which he held. How, then, could he ask a foreign country to acknowledge that diploma to the extent of allowing him to practice? What became of the argument about the comity of nations under those circumstances? He (the Chief Justice) thought it would be an unreasonable construction to put on the section to give it a world-wide application, and that a more reasonable one was to confine it to persons who were graduates of universities within the United Kingdom.

Mr. Justice McIntyre said he was of the same opinion as the Chief Justice. *Prima facie*, no doubt, the operation of the section was to our own land, but it was evident that at the time of the passing of the Act it was intended to include doctors of medicine of the United Kingdom, as there was no university in Tasmania at that time, but in his opinion there was nothing to show that the intention was to include foreign universities or universities in non-British countries. In order to do that it should be expressed in the statute. It was not a question of the comity of nations, but of the construction of a statute. He agreed that the existing Act was behind the times, and should be amended as soon as possible. The rule was discharged with costs.

Insanity in Australia.

New South Wales.

From the annual report of Dr. Eric Sinclair, Inspector General of the Insane, for the year 1907, we learn that on the 31st December, 1907, the number of persons under official cognizance was 5607. On the 31st December, 1906, the number was 3285 males and 2240 females, total 5525. The increase during the year was, therefore, 82, and as the average for the past twenty years is 140, the increase for 1907 is a low one. The proportion of the insane to the general population is 1 to 280.

Admissions.—The number of admissions during the year was 977, of whom 824 were admitted for the first time, and 153 have been in one of the New South Wales hospitals on some previous occasion. Natives of New South Wales formed 53 per cent.; other Australian States, 9 per cent.; England, 17½ per cent.; Ireland, 9½ per cent.; Scotland, 4 per cent.; and other countries, 7 per cent. of the whole admissions.

Discharges.—The number of patients discharged recovered was 413, equal to a rate of 42·27 per cent. on the admissions and readmissions. In this return are included the figures from the Hospital for Imbeciles at Newcastle, from which, however, no recoveries can be expected. Excluding Newcastle, the recovery rate is increased by 2·09 per cent., making it 44·36 per cent. The number of those discharged improved was 86, showing a proportion to the admissions and readmissions of 8·8 per cent. The recovery rate shows an increase of 4·16 per cent. compared with 38·11 per cent., the recovery rate for 1906. This is an increase of 1·07 per cent. on the average for the past ten years. The increase in the recovery rate is to a large extent brought about by the fall in the number of admissions. The overcrowding in the hospitals, which has not yet been completely removed, still operates to keep the recovery rate lower than might otherwise be expected. The number of

patients discharged on probation, or granted leave of absence to the care of friends, during the year was 314, making, with those remaining from the previous year, 507. Of these 177 were discharged, 125 were returned to hospital, and 6 died; 199 remaining still on leave at the end of the year, as compared with 193 at the close of the previous year.

Deaths.—The deaths numbered 396—the males numbering 265 and the females 131, a percentage of 7·43, which is about the same as for previous years. By far the greater number of deaths were due to cerebral and nervous diseases, as is to be expected in hospitals for the treatment of mental diseases. The proportion was 161 out of a total of 396, or 40·65 per cent. of the whole. Of these, 70 were cases of general paralysis. Pulmonary consumption is given as the cause of 48 deaths; other diseases of the lungs, 32; diseases of vascular system, 32; and old age and debility, 29. The consumptive patients are separated, as far as possible, from others, and treated in the open air. More, however, is being done in this direction, and suitable buildings are being provided for patients in the hospitals who suffer from this disease on admission or who develop it afterwards.

Accidents.—The number of accidents reported in the hospitals was 18, of which none ended fatally. There were 3 cases of suicide—1 at Parramatta by hanging, 1 at Callan Park by drowning, and 1 at Kenmore, where a patient, who escaped from the hospital and was returned next day, died shortly afterwards from phosphorus poisoning self-administered while absent from the hospital.

The increase in the insane in the hospitals.—For many years past it has been necessary to call attention in the annual report to the insufficiency of accommodation provided in the Hospitals for the Insane in this State for the number of patients who are sent to them for treatment, and although a liberal building programme has now been undertaken by the Government, it will be some time before the accommodation is brought up to the requirements. While the published figures as to the number of the insane in the community need not give rise to undue feelings of apprehension as indicating a greater liability to insanity, it is, on the other hand, necessary to realise that with the increasing population in the State as a whole, a certain proportionate increase in the numbers in the institutions cannot be avoided. Were the population to become stationary, the increase in the insane would in all probability soon also cease to grow, but while the community increases by many thousands annually, of whom a certain proportion will in the nature of things become afflicted with insanity, provision for these patients must inevitably be made. The State cannot, therefore, avoid the necessity of increasing annually the expenditure both for the maintenance of the Department and for the construction of additional wards and institutions.

Accommodation.—The accommodation for the insane in New South Wales is provided in six hospitals for 4793 patients, but at present 5320 are inmates, an excess of 508. Additions are now being made at Gladesville, Kenmore, Rydalmere, and Parramatta Hospitals, which will add about 200 beds. At the same time these will provide acute wards, or, more correctly, mental hospitals, to each of the acute hospitals for the better treatment of recent cases. To provide for the chronic accumulation, wards are being erected at Morisset, capable of accommodating from 150 to 200 beds. This site consists of 1300 acres of land on the shores of Lake Macquarie, and it is hoped to use it as an industrial farm colony for suitable patients. The further provision for recent cases referred to in last

report, viz., that for patients in the early stages of insanity and whose cases are not yet so pronounced as to be certifiable—has been made in the grounds of the reception house at Darlinghurst. The cases to be treated in this building will be of the same class it is hoped the general hospitals, such as the Royal Prince Alfred and the Sydney, will in time admit to their wards. The available land at Darlinghurst is so limited that it is only possible to put up a small building with 20 beds, but it is hoped this will suffice to prove the value of the principle of treating a proportion of the early cases, apart from the regular hospitals for the insane, and without certification. It is evident that future progress in the treatment of mental disease must take one or other of three forms; the admission of suitable forms of insanity to wards attached to general hospitals, or the treatment of such cases in a special mental hospital, or improved conditions in regular hospitals for the insane. In this State it is recommended that all three should be followed so that ample provision may exist for all classes of cases. Improvements to our regular hospitals for the insane have of late years been extensively planned, and each of the larger acute hospitals will within a short period have attached to it an admission ward so arranged as to form a mental hospital complete within itself, in which patients may be treated from beginning to end of their illness without entering the general wards of the institution. To procure admission to these hospitals, however, it is necessary, under the present law, for the patient's disease to have progressed sufficiently to admit of his being certified. The special mental hospital will be represented by the ward at Darlinghurst, which, if experience justifies the course, may ultimately be expanded into a larger institution. The third method is one which rests with the general hospitals, and not with this Department, and it is hoped that at an early date those directing their management may see the advantage of giving the method a trial. These provisions apply more especially to the metropolitan area, because the larger number of patients are received from its population. The arrangements for country districts must be modified to suit the more sparse population, but it is hoped they will in time follow on similar lines with such modifications as may be necessary. In such country towns as are either large enough in themselves or have a sufficiently extensive district to warrant the expenditure, special hospitals under the Lunacy Department, or wards attached to local hospitals, should be provided; but undoubtedly the latter is the more correct course for any but the largest towns.

Reception Houses.—There are now two reception houses, one at Darlinghurst and one at Newcastle. The former serves the metropolitan area, and the latter Newcastle and the Northern district. The Darlinghurst reception house is so largely availed of as to justify the expense of its maintenance and of future extensions. The good work done in the Newcastle institution is sufficient to warrant its being retained, but its experience makes evident that in a town of less size considerable periods would occur when there were few or no patients under care, while the necessity for being prepared for receiving cases at a moment's notice would entail the institution and its staff being kept always ready. New reception houses in smaller towns would not, therefore, be justified at present. The Prisons Department, at the instance of the Comptroller-General, Captain Neitenstein, has suggested a compromise which so far has been of some value. A room or rooms in the gaols attached to most of the larger country towns has been declared a reception house, and the patients under observation on account of presumed

insanity are placed in these. Although within the gaol premises, they are not considered as prisoners, and their names are not recorded in the prison books. Where a special attendant or nurse is provided in place of the gaol warder, the cost is made a charge on the Lunacy Department. Such an arrangement is evidently an advance on the previous custom, but it should not be considered as final. Insanity is a disease, and should be cared for in a hospital and not in a prison cell. The proper place for these patients is the hospital of the town, not the gaol, but it has been found with considerable regret that hospital committees raise objections to their admission, and continue their refusal, even when the cost of maintenance is undertaken by the Department. It is hoped that public opinion will, in time, induce an alteration of this attitude in those in charge of country hospitals. The combination of a reception ward or bed in local country hospitals, with a mental hospital in the larger towns throughout the country, would, it is felt, prove a reasonable solution of the present unsuitable arrangements for dealing with insane patients outside Sydney and Newcastle. The number to be dealt with in each hospital would be comparatively small, since those suffering from incurable forms of insanity, or from a form unsuitable for treatment outside a hospital for the insane, would be forwarded immediately to one of the larger institutions.

Scientific Work.—The scientific work of the Department has made progress during the year, and the pathological laboratory at the University has been worked in connection with the Callan Park Hospital where special series of clinical rooms, laboratories, etc., were fitted up some time ago. The laboratory has thus been enabled to avoid the error of confining its work too strictly to histological research, and placed in a position to carry out investigations in connection with the processes in the living body. The direction of the pathological laboratory is with Dr. Flashman, who also edits the published reports of the scientific work.

Changes in Staff.—Dr. O. Latham was appointed junior medical officer, and Dr. Mansfield, junior medical officer, resigned. The number of attendants, nurses, and servants who left or were dismissed was 145; of these, three were dismissed, five died, and 135 resigned.

Cost.—The amount expended on the maintenance of patients during 1907 was £149,728 10s 2d, being an increase of £6482 11s 6d on the previous year. This amount is that required for the increase of patients, it being evident that with an increase in the average number resident, additional sums for maintenance are incurred. Notwithstanding an increase in the number of patients to be maintained, the average cost per patient, as shown in the following table, remains about the same as for the two previous years. A sum of £27,927 13s 7d was collected by the master in lunacy for the maintenance of patients, and £1627 0s 2d was received by the hospitals from the sale of fat and old stores. The actual expenditure by the State, therefore, is to be reduced by these amounts, making it £120,173 16s 5d.

South Australia.

Dr. W. L. Cleland, the head of the Lunacy Department, in his annual report for the year 1907, states that the asylum population numbered on December 31st, 1907, 1019 persons, an increase of 25 on the number at the corresponding date in 1906; 19 males, 6 females. This is the first year in which the total number of patients at the end of the year totalled 1000 and over. For the first time the number reached 900 and over in 1895, so that it has taken 12 years to add another 100 to what may be looked upon as the permanent number.

Admissions.—During the year 1907 211 patients were admitted requiring fresh certification. Of these, 99 male patients and 87 female patients were sent to the asylum for the first time. The balance of 10 males and 15 females had been certified insane on some previous occasion. By the end of 1907, of the 209 admissions during 1906, 76 had been discharged, 61 had died, and 72 were remaining. Of the 219 admissions during 1905, 97 had been discharged, 63 had died, and 59 were remaining. After a two years' residence the number of the residue does not vary much, either in the form of discharges or death. An unfavourable element in the admissions for 1907 is the long duration of the mental illness before the patient came to the asylum. Twelve males and 12 females had been suffering from mental disability for from two to three years before their admission. This necessarily implies that any prospect of recovery or improvement was reduced to a minimum. There was also a notable increase amongst the admissions of patients 60 years of age and over, namely, 25 males and 12 females. These were cases admitted for the first time, and were, therefore, more of the nature of a senile breakdown than of insanity. As, unfortunately, many people as they advance in years become restless and difficult to manage, and if the financial means at their disposal is limited, there is no option but to send these melancholy wrecks to a hospital for the insane. The form of mental disease amongst the admissions has not varied much from preceding years. Fortunately, of any one form, the most favourable as regards prognosis of recovery predominated, namely, the pre-eminently emotional one. It will be noted that it also furnished most of the re-admissions, which were rather fewer than in the preceding year.

Discharges.—The percentage of discharges on admission was higher than in the preceding year, but lower than in the preceding three years. The male discharge was particularly poor, whilst the female one was high. A notable feature in the discharges was the number who had been more than three years in the asylum. This applied to the female discharges, which were 10, as compared to three in the preceding year. Most of these had commenced to show a mental instability at the climacteric, and when the change of life had been thoroughly established in the course of a few years they then again resumed their mental equilibrium. In other respects, the total length of the attack of mental disorder in those discharged in 1907 was very nearly the same as in 1906, that is, over 70 per cent. were not in the asylum six months. The form of mental disorder in the discharges was, as usual, largely of the emotional type, shown by either excitement or depression, with or without fleeting delusions. Delusional insanity is, as a rule, not specially favourable as regards prognosis, but if the delusions are of a harmless nature, and not specially affecting conduct, there is no reason why such patients should waste their time in an institution instead of working for their living. A third form of insanity which generally contributes to the discharges is what is called toxic and confusional insanity. The three forms of insanity mentioned, namely, the manic-depressive, the delusional, and the toxic and confusional, furnished the 97 discharges out of the 120.

Deaths.—In 1907 the rate was equal in both sexes, and lower than it had been for some years, namely, males 8.4, females 8.6 — total 8.5. There was a complete absence of anything like an epidemic of any of the infectious and notifiable diseases. There were also only scattered cases of colitis, or, as it is sometimes called, "asylum dysentery." The forms of mental unsoundness which contributed the larger proportions of the deaths were naturally

those suffering from gross brain lesions, including general paralysis, numbering 21, and those from a senile breakdown, numbering 26. As usual, the deaths were more numerous amongst the comparatively recent cases.

HOSPITAL INTELLIGENCE.

Royal Alexandra Hospital for Children, Sydney.—At the monthly meeting of the board of management the medical report showed that 123 patients were admitted during the month, 120 were discharged, 81 operations were performed, 10 deaths had taken place, and there were 101 patients remaining in the hospital. At the outpatients' department 747 cases were treated, necessitating 2717 attendances. The expenditure for the month was £1062 1s 8d. The receipts from patients' payments amounted to £55 9s. Satisfactory reports were received from the monthly visitors. The honorary treasurer's report showed a debtor balance of £101 12s 2d. A letter was read from Mr. J. St. Vincent Welch tendering the resignation of his position as hon. treasurer and member of the board of management, but stating that if invited at some future date he would be pleased to again give his services to the hospital when circumstances permitted of his doing so. Mr. Welch's resignation was accepted with regret.

Launceston General Hospital.—At the meeting of the board of management of the General Hospital, which was held last August, the finance committee reported that during the month receipts in shape of patients' fees amounted to £187 7s 8d, which, with the Government subsidy of £375, brought the revenue for the month up to £562 7s 8d. The expenditure for the same period was £653 12s., being £91 4s 10d in excess of revenue. During the month 110 patients were discharged, whilst 10 died. One hundred and thirty-four persons were admitted to the institution for treatment, of whom 92 were from the country districts and 42 from the city. Two draft regulations, prescribing conditions and charges for the use of the X-ray apparatus, were presented for adoption. The resident medical staff may receive a fee for undertaking X-ray examinations and treatment at the request of an outside medical practitioner, 25 per cent. of all fees to go to the funds of the board. (2) Any legally-qualified practitioner may, with the consent of the superintendent, use the X-ray apparatus for his private patients at such hours as may be appointed, and solely at the hospital. He is to be responsible for all damage occurring during such use, and replace, or have satisfactorily repaired, any portion of the apparatus injured; 25 per cent. of all fees received for such use to go to the funds of the board. Scale of fees.—Ordinary examination and special application, £1 1s; ordinary examination and taking photo, £1 5s and cost of photo; special examination and photos, up to £5 5s.

The Hospital dispute, which has engaged public attention for the last three months, was brought to a conclusion September 17th, when the board met to discuss the reports of the special committee which was appointed to inquire into the relations existing between the resident and the honorary medical staffs. Two reports had been submitted, one bearing the signatures of four members of the committee, and the other the signatures of the three other members of the committee. Dr. Thompson asked to be allowed to withdraw the minority report, and this was done with the concurrence of the board. The chairman then moved that the recommendations in the majority report be deleted, and the following substituted:—"The committee examined a number of witnesses, and, after due consideration of

the evidence, are of opinion that the assigned causes as to the new sisters leaving the hospital were not substantiated; (2) that the evidence does not support the charge that the rules and regulations which govern the management of the hospital have been broken; but it is much to be regretted that disagreements, though largely of a personal character, have arisen between some of the hon. medical officers and the medical staff with regard to the etiquette which should prevail, and it is evident that the *esprit de corps* which should obtain in the professional part of the hospital, and without which the hospital cannot be satisfactorily conducted, has been wanting, and the committee hope that the requisite co-operation will shortly be secured by mutual agreement." The motion was carried *nem. con.* Dr. Pardy then rose and said that he had for some time intended to retire from the board at the end of the year, and to this intention he meant to adhere.

Hospitals for Insane in New South Wales.

—Extensions are to be made to several of the hospitals for insane. At the Morisset Hospital for Insane the plans provide for a block of brick buildings on concrete foundations with tiled roof. The block is in the form of a T. In the centre will be the reading and sitting room, 72 feet by 32 feet, with full bath and lavatory accommodation at one end. On the right of the sitting-room will be a billiard-room, 45 feet by 30 feet, with foundations for three tables, and on the left of the sitting-room will be a library, 35 feet by 30 feet, with a storeroom and other apartments adjoining. A verandah, 12 feet wide, will run the entire length of the front wall of the building, which means that it will be about 130 feet in length. But this recreation block when it is erected is to be put to other uses, temporarily so, for it is to be divided off with wooden partitions and turned into a kitchen block, pending the erection in the near future of the permanent kitchen block. That means that the great sitting-room is to be turned into a dining hall, the billiard-room into a first-class laundry, and the library into a well-appointed kitchen, pantry and store house. Externally the building will have a rather pleasing appearance with its red brick walls, relieved with stone dressings, and its tiled roof surmounted in the centre by a handsome copper fleche, containing provision for the dial-plates of a large clock showing on four sides. The proposed improvements at the Parramatta Hospital for Insane are extensive, and it is estimated will run into something like £20,000. The plans provide for the erection of two blocks of buildings, one known as the admission block and the other as the hospital block, each of which, although but one story in height, will cover a large area of ground. In the front of the admission block there will be a verandah over 100 feet long and 12 feet wide. The main entrance will be from this verandah into the centre apartment, which will be a dayroom, 27 feet by 32 feet. Immediately at the rear of the dayroom will be a dormitory, 34 feet by 20 feet, with provision for 10 beds, and attached to the dormitory will be large bathrooms, attendants' room, pantry, etc. On the right of the dayroom will be a suite of rooms for the attendants. These are placed on each side of a wide corridor, and at the end of the corridor will be bathrooms and a smaller dayroom, 25 feet by 20 feet. It is proposed to place the hospital block on a site at the rear of the admission block. It will have extensive verandahs, both back and front. In the centre of the block will be the main entrance leading into a dayroom, 24 feet by 18 feet, with a large pantry at the rear. On the right of this dayroom will be a dormitory, 33 feet by 22 feet, with provision for 10 beds. A smaller ward will be at the end of the dormitory, also bathrooms, etc. On the left of the main dayroom will be another dormi-

tory, 30 feet by 22 feet, for eight beds. There is also an observation ward, with provision for two beds, attendants' rooms, bathrooms, lobby, hot water chamber, and general storehouse. All the rooms are specified to be fitted in the latest and most up-to-date manner applicable to the requirements for the treatment of mental diseases. At Gladesville the plans provide for alterations and additions to what is known as the kitchen block. It means the taking down, altering, re-erecting, and extending an important wing of the buildings. All partition walls in the present kitchen and dining-room are to be pulled down, and the whole area converted into one large dining-hall, 50 feet by 24 feet, the walls of which are to be finished in opal tiling, and the ceilings in fibrous plaster. Off the dining-room will be the pantries, offices, and bread store. On the other side of the roadway is another block at present in use as stores and offices. This is to be altered, and extended and fitted as a new kitchen, 30 feet by 20 feet, with a baker's oven, boiler-house, and other apartments adjoining.

Children's Hospital, Hobart.—The ceremony of laying the foundation-stone of the Children's Hospital, which is being built in connection with the Hobart General Hospital, was performed last month. The want of such a hospital has been keenly felt for years. The committee received the most enthusiastic assistance in their work from all sections of the community. The State-school children in particular worked hard in the matter of collecting money, and through their aid about £100 was added to the fund. The inscription on the stone is—"This hospital was erected from funds bequeathed by Miss Amy Ball and Arthur Leake, Esq., supplemented by public subscriptions. Foundation stone laid by Mrs. W. B. Propsting, September 23, 1908. Chas. Harbottle, chairman." Mr. Hurst, the secretary of the Children's Hospital committee, then handed a cheque for £1047 to the chairman, and in doing so said that that was the amount which had been collected throughout Tasmania by the committee of which he was secretary. The movement was started in December, 1906, and had spread throughout the island. Mrs. Propsting and her husband (the Hon. W. B. Propsting) were most enthusiastic in the matter, and had given the movement every support. Their thanks were due to the Director of Education, as the children attending the State schools had collected more than £100 towards the fund. The proprietors and staff of the *Mercury* also deserved their heartiest thanks, as the paper had been practically placed at the disposal of the committee for months. The Mayor had also given his room free of charge for the committee to meet in, whilst numbers of ladies and gentlemen in the country had assisted them immensely by forming committees to assist the movement. The manner in which the ladies and gentlemen connected with the committee had worked was shown by the fact that the expenses in connection with the collection of £1100 had only been £56. Hon. C. E. Davies said he had much pleasure in handing over a cheque for £450, which was the amount collected through the *Mercury*. The building is being erected on the principle of separate pavilions connected by open corridors. This system has the obvious advantage of making it possible to isolate any of the sections of the hospital in the event of provision having to be made for contagious diseases, or for disinfecting a particular ward. Provision is made for a complete hospital of 24 beds, comprising two main wards of 10 beds each, an admission-room with one bed, and an observation ward with three beds. The latter wards are contained in a central block, which has an entrance porch in front flanked by the two main wards,

one on each side in separate buildings or pavilions. At the rear of the central building is the kitchen block, containing the kitchen and conveniences, and the nurses' sitting-room, which commands a view of the different wards and adjuncts. Provision is made for an extra story to be added at any time, which will be served by a staircase and food-lift. Each ward has allotted to it a bathroom, linen-room, pantry, and sanitary arrangements. Special consideration has been given to the subject of ventilation and warming. The ventilation system is what is known as the natural system, with fresh air vents in the walls. There are also openings at the floor line for flooding the wards with pure air periodically. The wards will be heated by hot-water radiators, so arranged as to warm the incoming fresh air.

St. Margaret's Convalescent Hospital, Semaphore, S.A.—The annual report presented at the thirty-second annual meeting of subscribers to St. Margaret's Convalescent Hospital, Semaphore, S.A., held last month, stated that 818 patients were admitted, as compared with 832 received during the previous year. Of these, 366 were males, and 452 were females. Of the 818, 620 were admitted on subscribers' orders, 91 were sent from the Adelaide Hospital, and 107 came in on orders granted by members of the medical profession. Of the number, 450 were discharged as restored to health, 272 were discharged as much improved, 77 were discharged as improved, and 19 were discharged as not improved. The income for the year amounted to £1201, being an increase of £104 on the amount received as such during the previous year. Annual subscriptions were better by £12, and donations by £36. The fees paid by the Adelaide Hospital during the year amounted to £73, as against £176 received during the previous year, showing a falling off of £103. The only special gift during the year was one of £50, generously donated at Christmas under cover of anonymity. Structural alterations have involved an additional outlay of about £700, which has been taken out of moneys put aside in past years with the object of being eventually capitalised. The balance-sheet showed the income to have been £1201, made up of subscriptions, £295; donations, £174; Adelaide Hospital fees, £73; patients' fees, £465; interest on deposits and endowments, £193. The expenditure included general maintenance, £594; wages and salaries, £380; furnishing and renewals, £34; printing and stationery, £12; new drainage outlay (proportion paid out of year's income), £152; and there remained a surplus of £27.

MEDICAL NOTES.

Sanitary Inspectors.—Dr. Ashburton Thompson, as Chairman of the Board of Examiners in New South Wales of the Royal Sanitary Institute of London, has addressed a letter to the different municipal councils, who employ certificated inspectors, outlining a scheme whereby persons who propose to undergo the examinations of the institute might have an opportunity of acquiring practical knowledge. A considerable number of candidates is expected to appear at the next examination in Sydney. Under existing circumstances, however, many candidates not previously in municipal employment have great difficulty in acquiring that knowledge of the practical work which is a necessary supplement to book learning. Councils are therefore asked if they would be willing to afford candidates an opportunity of acquiring this. It is thought that this might be done without in any way interfering with the inspector's ordinary work.

Dr. Thompson requests councils which are willing to forward an answer stating whether they would be prepared to allow intending candidates to put themselves in communication with the local sanitary inspector, and to state the number of candidates who could be afforded the opportunity at one time, and if they would be allowed to continue for, say, three months. The matter is now receiving attention from the different councils.

Eight-Hours' Day for Nurses.—Under the auspices of the Australasian Trained Nurses' Association, Miss Rose Scott, lecturing on "Nurses and the Cultivation of Sympathy," said that women in hospitals should demand an eight-hours' day, and the doctors insist on their obtaining it. In some of the large American hospitals it was compulsory. Overworked nurses could not be expected to show much sympathy. Every new patient was a new page from the book of life to be studied—not a mere case. There was no better medicine for the patient than to feel that he was understood. The woman should be above the nurse. Miss Sanders moved a vote of thanks, and Miss Gould, in seconding it, said that an eight-hours' day for nurses would mean an increase of a third in expenditure.

Old Times in Tasmania.—The following is an extract from a letter written by Dr. C. Fordyce Story, M.A., M.D., etc., which we take from the *Tasmanian Mercury*:—"Having entered upon the tenth year of my appointment as district assistant surgeon, and having served the Government for more than nine years to the uttermost of my ability, without having obtained the least increase of salary (which was 3s per diem) . . . For I can safely say that there is no department so ill repaid as that of district assistant surgeon. The surgeon must possess at least as great a fund of knowledge, both general and particular, as any other person holding office, and yet, when the pay of the assistant police magistrate (10s 6d per diem) is contrasted with that of the district assistant surgeon at 3s per diem, how great is the difference? Even the magistrate's clerk and the district constable are better paid. On entering on the duties of my situation in April, 1829, the district of Great Swan Port was scarcely known, and did not even possess footpaths through it, and was infested with a ferocious tribe of aborigines, known by the name of the Oyster Bay tribe, in whose excursions through the district some, either soldiers or convicts, were sure to be attacked and injured, and these persons I was called upon to attend, not only without any other remuneration than my salary afforded, but also at the hazard of my life, having to travel alone, even when a garrison order protected the private soldier by prohibiting him from pursuing his route without a comrade to accompany him, not to mention the dangers to which I have been exposed in crossing rivers swollen by floods."

Government Charitable Aid in Tasmania.—The following return shows the amounts paid to the charitable and medical institutions during the year ending June 30th, 1908:—Benevolent Society, Hobart,* £200; Benevolent Society, Launceston,* £200; Blind Asylum, Hobart,* £300; Consumptive Sanatorium, New Town,† £200; General Hospital, Hobart, £4945 4s 8d; General Hospital, Launceston, £4500; General Hospital, Hobart,* £1300; General Hospital, Launceston, £1300; Hospital, Zeehan, £500; Hospital, Queenstown,* £400; Hospital, Beaconsfield,* £200;

Hospital, Latrobe,* £180; Hospital, Strahan,* £100; Hospital, Waratah,* £100; Hospital, Campbell Town,* £100; Homœopathic Hospital, Hobart,† £250; Homœopathic Hospital, Launceston,* £200; Queen Victoria Hospital, Launceston, £100; total, £15,075 4s 8d. * £1 for every £1 raised by subscription or fees during the year. † £1 for £1 principle, paid out of Surplus Revenue Act, 1906-7. ‡ On basis of subscriptions and fees raised during the twelve months ending June 30th, 1908.

PERSONAL ITEMS.

We regret to learn that Sir Arthur Renwick, M.D. of Sydney, is seriously ill.

Dr. M. A. Shalit, of Delegate, N.S.W., who was recently married, was made the recipient of a wedding present from the local lodge of the Grand United Order of Oddfellows, of which body he is medical officer. The gift took the form of a silver-mounted oak liqueur-stand, with cut-glass decanters. The present was suitably inscribed.

Dr. John Semple has removed from Ingham, Queensland, to Kilmore, Victoria.

Dr. B. Hoggan, of Glenelg, S.A., died rather suddenly last month. The coroner said that the letter left by deceased was of a rambling nature, and indicated the state of his mind. He returned a verdict of suicide by morphia poisoning whilst of unsound mind.

Dr. A. Harcourt has removed from Kingaroy to Toowoomba, Queensland.

Dr. M. Culpin has left Brisbane for Taringa, Queensland.

Dr. John (†) Avery has removed from the Brisbane Hospital to the Asylum for the Insane, Goodna, Queensland.

▶ Dr. W. B. Heyward, who for some years was house surgeon at the General Hospital, Launceston, has gone for a trip to the East.

Dr. Dansey, medical superintendent at the Royal Prince Alfred Hospital, Sydney, has decided to resign his connection with the institution in order to take up private practice in one of the suburbs. Dr. Dansey has been connected with the hospital for six years. During the first three he was resident medical officer, and since then has filled the post of medical superintendent.

Dr. Riley, of Dunedin, has been presented with a gold-mounted fountain pen by the nursing classes of the St. John Ambulance Association, and Dr. Church was also presented by the women's first-aid class of the same association with a travelling bag.

Dr. Warren, a resident of Berrigan, N.S.W., for five years, was entertained at a social on September 26th prior to his departure for Queensland, and presented with a purse of sovereigns.

Mr. J. F. G. Richards, of Wellington, N.Z., has been awarded a Guy's Hospital junior science scholarship of £150.

Dr. H. P. Blaney has taken over Dr. H. C. R. Bell's practice at Coolah, N.S.W.

Dr. McIntyre Sinclair, medical superintendent of the Queen Victoria Sanatorium, Wentworth Falls, is leaving for his own sanatorium on the mountains. Sir Philip Sydney Jones, on behalf of the board, expressed regret at Dr. Sinclair's retirement, and placed on record

their appreciation of his long and valued services. He then presented the doctor with a sulky, the gift of the staff, ex-patients, and patients. Dr. Sinclair, in responding, outlined the history of the sanatorium, which favourably compared with any British or Continental sanatoria, and was capable of treating 54 patients, and in conclusion, urged the necessity of a Government subsidy.

Dr. C. G. Crowley returned to Melbourne on September 14th by the steamer "Miltiades," after a sojourn in England and the Continent for the past two years.

Dr. Dermer has returned to Fremantle, W.A. He is quite restored to health, and now shows no ill-effects from the tramway accident which he met with before visiting England, and which necessitated so long a rest.

Dr. C. W. Laver is back in Perth, W.A., and contemplates resuming the practice of his profession in the metropolis.

Dr. Dowling, who was at Wagin, W.A., acting as *locum tenens* for Dr. Nutting, succumbed there to an attack of influenza. The deceased had been practising in the old country and in the Commonwealth for some 40 years.

Dr. J. L. McKelvey, medical superintendent of the Melbourne Hospital, who has been appointed to a responsible position in Sydney, tendered his resignation to the committee of management.

Dr. Rupert Hornabrook, of Adelaide, returned from a 14 months' visit to Great Britain by the "Orontes" on September 14th. He intends to settle in Melbourne.

Dr. E. M. Steven has left Adelaide for Millicent, where he has made arrangements to settle.

Dr. A. A. Palmer of Sydney, has resigned his position as a member of the Dental Board of New South Wales.

Dr. A. N. McArthur has resigned his position as hon. surgeon of the midwifery department of the Women's Hospital, Melbourne.

On September 19th the representatives of the Railway and Tramway Ambulance Corps took the opportunity of presenting Dr. G. P. M. Woodward, late railway medical officer, with a framed address, as a testimony of regard on his retirement from his late position. Dr. Woodward inaugurated the ambulance corps in 1885, and the membership has now risen to over 3000. Dr. Woodward died on October 4th.

Mr. T. H. Laby, formerly of Sydney University, and now of Emmanuel College, Cambridge, has been awarded a research studentship of the value of £150.

Dr. James Jamieson has resigned his position as hon. in-patient physician at the Alfred Hospital, Melbourne having acted in that capacity for 24 years.

Dr. J. Malcolm Mason, chief health officer of New Zealand, and Mr. Ponare, native health officer, are attending the session of the Australasian Medical Conference in Melbourne.

Dr. W. A. Giles has resigned his position as hon. surgeon at the Adelaide Hospital.

Dr. Paton will take up the duties of Inspector-General of Charities for New South Wales at once. The appointment of his successor as Government Medical Officer has not yet been decided upon. In the meantime Dr. Ashburton Thompson, president of Board of Health, will arrange for the carrying out of the duties.

Dr. David Grant's seat on the Melbourne University Council has become vacant owing to his having withdrawn from all but professional engagements, on the ground of ill-health. His friends have decided to renominate him to the Council, in the hope that he will soon be able to resume his seat there.

MEDICAL APPOINTMENTS.

VICTORIA.

The following persons to be Officers of Health for the districts set opposite their names respectively, viz.:

Breton, Hewlett, L.R.C.P., for Hampden Shire, West Riding, vice Arthur Geoffrey Owen, M.D., resigned.

Bond, Francis Spencer, L.R.C.P., for Orbst Shire, West Riding. *The following appointments have been made to the Alfred Hospital, Melbourne:*

O'Hara and Schlesinger, Drs., to be Hon-Surgeons In-patients and Out-patient respectively; Dr. J. Mackeddie to be Hon. In-patient Physician, vice Dr. Jas. Jamieson, resigned; Dr. James Jamieson to be Hon. Consulting Physician.

NEW ZEALAND.

Hallwright, Guy, M.R.C.S. (Eng.), to be a Port Health Officer for the Port of Westport, vice Dr. Murdoch Mackenzie, resigned.

Morice, Charles George Frederick, M.R.C.S. (Eng.), L.R.C.P. (Lond.), M.D. (Brussels), to be Port Health Officer for the Port of Greymouth.

Hastings, Dr. J. P., to be Medical Superintendent of the Nordrach Sanatorium, Dunedin.

Paterson, Charles Austin, L.R.C.P., L.R.C.S. (Edin.), to be a Public Vaccinator for the District of Pleasant Point, vice Dr. W. C. Burns, resigned.

SOUTH AUSTRALIA

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz.:

Mayo, Helen Mary, M.B., B.S., Adelaide.

Sleeman, Benjamin, M.B., B.S., Renmark.

Abbott, C. T., Denial Bay.

WESTERN AUSTRALIA.

Dixie, Clement, to be Acting District Medical Officer and Public Vaccinator, Pingelly.

Dowling, F. J., to be Acting District Medical Officer and Acting Public Vaccinator, Wagin, during the absence on leave of Dr. Nutting.

Barker, Gilbert, M.B., B.S., to be Junior Resident Medical Officer at the Perth Public Hospital.

NEW SOUTH WALES.

Steele, A. B., to be Government Medical Officer for the Clifton district.

TASMANIA.

Graham, A. W., to be Port Health Officer for Beauty Point vice John Davies, resigned.

Webster, L. Clarke, to be Honorary Medical Officer of the Launceston General Hospital, vice J. A. Webster, resigned.

QUEENSLAND.

Willis, Dr., to be Surgeon to the Hughenden Hospital.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:

NEW SOUTH WALES.

Lyth, Charles Ernest Wheatley, M.B., 1904; B.S., 1906 (Lond.); M.R.C.S. (Eng.), 1902; L.R.C.P. (Lond.), 1902.

Ramsden, Edward Maxwell, M.B. (Syd.), 1908.

Jamieson, Douglas Dunbar, M.B., B.S. (Melb.), 1905.

Oldham, Edward Percy, M.B., B.S. (Melb.), 1907.

Bruehl, Siegwart, M.D. (Univ. Halle), 1881; State Exam. Berlin, 1882.

Grinling, John Campion, M.B., 1884; M.D., 1900 (Durh.)

For Additional Registration:

Philpot, Harvey John, L.R.C.P. (Lond.), 1872.

Harvey, John Thomas, M.D. (Edin.), 1908.

QUEENSLAND.

Holmes, Charles Thomas, M.B., B.S., 1900 (Durh.).

O'Halloran, Charles Michael, M.B., 1908 (Syd.).

Alcorn, John Macquarie, L.L. Mid., 1905, R.C.P. (Irel.), L.L. Mid., 1905, R.C.S. (Irel.).

Elworthy, Reginald Robert, M.R.C.S. (Eng.), 1906, L.R.C.P. (Lond.), 1906.

BIRTHS, MARRIAGES AND DEATHS

BIRTHS.

COURTNEY.—September 6th, at "Lynmere," Learmonth, Victoria, the wife of Dr. C. A. Courtney—a daughter.

HUGHES.—September 27th, 1908, at "Kimmerree," Lang-road, Centennial Park, Sydney, the wife of M. O'Gorman Hughes, M.B.—a daughter.

WALL.—September 24th, at Edinburgh, Scotland, the wife of Frank E. Wall, M.D.—a son.

MARRIAGES.

- BRIEN—UNDERWOOD.**—September 19th, at St. Andrew's Church, Indooroopilly, Queensland, William James, son of William Brien, Sydney, to Elsie Helen, daughter of the late Dr. Frederick H. Underwood, of "Ulleswater," North Sydney.
- CAVERHILL—HUME.**—August 20th, at St. George's U.F. Church, Edinburgh, Austin Mack Caverhill, M.B., Ch.B., Blantyre Mission, Nyasaland, younger son of John Caverhill, Jedneuk, to Eleanor, daughter of the late Rev. Thomas Hume, Mackay, Queensland.
- CHERRY—AYERS.**—September 28th, at St. John's Church, Sydney, N.S.W., Surgeon William N. L. Cherry, R.N. (H.M.S. Challenger), son of Deputy Surgeon General William Cherry, late of Cragwell, New Ross, Co. Wexford, Ireland, to Mabel Edith, daughter of the late Frederick Ayers, of Adelaide, South Australia.
- CHISHOLM—SUTTON.**—September 2nd, at All Saints' Cathedral, Bathurst, N.S.W., Edwin Claud Hamilton, M.B., Ch.M., eldest son of Dr. E. Chisholm, of Ashfield, to Violet Ellaine, younger daughter of Mr. G. R. Sutton, The Pine Hills, Bathurst.
- DUNLOP—SMITH.**—September 24th, at the Parsonage, Balmain, Sydney, John Gordon Dunlop, M.B., etc., son of Dr. John Dunlop, of Glasgow, Scotland, to Ellen Lavinia Smith, daughter of the late Captain Mark Kemp, of Devonshire, England.
- O'REILLY—CALDWELL.**—August 27th, at "Listeen," Pymble, N.S.W., Theophilus Linnell O'Reilly, M.B., Ch.M., second son of Dr. W. W. J. O'Reilly, Sydney, to Emily (Cherry), fourth daughter of Rev. Richard Caldwell, Pymble.

DEATHS.

- HANDCOCK.**—September 22nd, at Ashburton, New Zealand, Charles L. M. Handcock, only son of Dr. C. L. Handcock, late of Goulburn, N.S.W.
- HOGGAN.**—September 8th, at his residence, Glenelg, South Australia, Bertram B. Hoggan, L.R.C.P., London.
- WOODWARD.**—October 4th, at his residence, Leigh Cottage, Belmore-road, Coogee, Sydney, George Paul Minchin Woodward, M.D., Dep. Surg. Gen. (retired), H.M. Imperial Army, and 24 years N.S.W. Railway Medical Officer; youngest son of the late William Woodward, Esq., of Clough Prior, Co. Tipperary.

BOOKS RECEIVED.

- The three following books have been received from Mr. H. K. Lewis, of 136 Gower-street, London:—
1. *Clinical Bacteriology and Hematology for Practitioners.* By W. D'Este Emery, M.D., B.Sc. (Lond.). Third edition number of pages xx v. - 252; demy 8vo. Price, 7s 6d net.
 2. *Landmarks and Surface Markings of the Human Body.* By Louis Bathe Rawling, M.B. (Cant.), F.R.C.S. (Eng.). Number of pages vii. - 96; demy 8vo. Price, 5s net.
 3. *The Sexual Disabilities of Man and their Treatment.* By Arthur Cooper, M.R.C.S., etc. Number of pages 184; demy 12mo. Price, 4s net.
- Operative Midwifery.* By J. M. Munro Kerr, M.B., C.M. (Glas.). Number of pages xii. - 705; royal 8vo, with 294 illustrations. Price, 21s net. London: Bailliere, Tindall and Cox. Sydney: L. Bruck.
- The following six books have been received from Messrs. W. B. Saunders Company, Philadelphia and London, per Mr. James Little, of Melbourne.
1. *The Care of the Baby.* A Manual for Mothers and Nurses. By J. P. Crozer Griffith, M.D. Fourth edition, revised; 12mo volume of 456 pages; illustrated. Price, 6s.
 2. *The Practice of Medicine for Nurses.* By George Howard Hoxie, M.D., with a chapter on the Technic of Nursing by Pearl L. Laptad. A volume of 248 pages, 12mo. Illustrated. Price, 6s 6d.
 3. *Adenomyoma of the Uterus.* By Thos. Stephen Cullen, Prof. of Gynaecology in the Johns Hopkins University. Price, 21s.
 4. *A Textbook of Surgical Anatomy.* By W. F. Campbell, M.D. Octavo volume of 675 pages, with 319 illustrations. Price, 21s.
 5. *State Board Questions and Answers.* By Max Goepp, M.D. An octavo volume of 684 pages. Price, 17s 6d.
 6. *Bier's Hyperemic Treatment in Surgery, Medicine, and all the Specialities.* By Willy Meyer, M.D. An octavo volume of 209 pages, illustrated. Price, 13s.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:—

Dr. J. R. Purdy, Hutt, New Zealand; Mr. L. Von Koennerst, Kogarah, Sydney; Dr. Richard Arthur, Sydney; Mr. G. T. Taylor, Hobart; Dr. B. B. Ham, Brisbane; Dr. J. Ashburton Thompson, Sydney; Dr. A. B. Brockway, Brisbane; The Secretary, Department of State Medicine and Public Health, Perth, W.A.; Mr. Archibald Ollé, Sydney; Dr. R. Worrall, Sydney; Dr. Litchfield, Sydney; Dr. Guthrie Rankin, London; Mr. P. A. Kob, Brisbane; the Editor,

"Charlotte Medical Journal," Charlotte, U.S.A.; Dr. W. C. Howle, Pambula, N.S.W.; the Manager, "Practitioner," London; Messrs. C. Mitchell & Co., London; Dr. J. Lockhart Gibson, Brisbane; Dr. D. Hardie, Brisbane; Dr. J. M. Gill, Sydney; Messrs. W. B. Saunders & Co., Philadelphia, U.S.A.; Dr. W. G. Armstrong, Sydney; Messrs. Mayer Maltzer & Jackson, Melbourne; Messrs. Donald, Ross & Co., Sydney; The Denver Chemical Manufacturing Co., New York, U.S.A.; Dr. R. C. H. Forster, Sydney; Dr. H. S. Newland, Adelaide; Dr. W. J. Stewart McKay, Sydney; Dr. J. B. Gunson, Adelaide; Dr. Henry Laurie, Melbourne; Dr. A. E. Martin, Perth, W. A.; Dr. Montgomery, Perth, W. A.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

MEDICAL MEN who purpose applying for the position of Medical Officer to the Chillagoe or Hampden-Mt. Elliott Hospitals are advised to communicate before doing so with the Hon. Sec., Medical Defence Society of Queensland, 109 Wickham Terrace, Brisbane.

MISS STODDART, Cert. Member A.M.A.—**BOWRAL CENTRE.**—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus, Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is cresote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 326

SYDNEY, NOVEMBER 20TH, 1908.

VOL. XXVII., No. 11.

PRESIDENTIAL ADDRESS.

*Delivered at the opening of the Eighth Session of the
Australasian Medical Congress, Melbourne,
October, 1908.*

**By H. B. Allen, M.D., Professor of Pathology in the
University of Melbourne.**

My first duty is to express my heartfelt thanks to the members of Congress for making me their president. The honour is great, perhaps the greatest the medical profession can confer, and it is the more welcome as it came at the primary instance of the heads of the various medical associations of my own State. The responsibility is great, for it is no light matter, when medical men have gathered from all parts of Australasia, to provide that their deliberations shall produce the greatest possible good to the public and the profession. Experience gained in past Congresses has removed some difficulties; the collective wisdom of the various committees has solved others; the executive officers have been unsparing in their efforts; and for what has been left imperfect, we trust to the kind indulgence and the co-operation of the Congress itself.

In the midst of our preparations, we have been called upon to deplore the loss of one universally honoured by the medical profession throughout Australasia, the president of the last session of Congress held in Melbourne, Sir Thomas Naghten FitzGerald. Endowed by nature with every gift that goes to the making of a great surgeon, appointed full surgeon to the Melbourne Hospital when only 22, soon engaged in a very extensive private practice, Sir Thomas had unparalleled opportunities, of which he made noble use. We mourn him as our leader in this State, as a man of lofty professional ideals, as a great social force, as a public benefactor, as a friend who never wavered, a great surgeon and a great man.

We have reached the second session of the second cycle of our Congress, and can look back with some pride on the records of our doings. The first great problem undertaken by Congress was the treatment of hydatid disease, and though the last word on that subject has not been spoken, the proceedings of Congress constituted a great advance in

the right direction. The discussions concerning typhoid fever aided to clear away the remains of ignorance concerning its nature and causation, and materially assisted the great preventive movement, in the success of which we now rejoice. The debates on tubercle did much to spread sounder views of the causation, treatment, and prevention of the disease. The work of the Congress on cancer was recognised by high authority, as ranking with the most suggestive contributions of its time. Surgical operations, first proposed at our meetings, have been universally accepted, and diagrams illustrating them have been copied from our transactions into the various text books. Such observations might be multiplied indefinitely, but probably the two most far-reaching results of Congress have been less direct. The first consists in the uplifting of the plane of work in the profession and the promotion of research. The second lies in the general stimulus to preventive medicine, as manifested in progressive legislation, in the activities of the various Boards of Health, and in every State and municipal and private enterprise forming part of the great contest with death and disease. On another side, the Congress has done much to establish better relations within the profession, to disseminate finer ideals of co-operation, to favour union of practitioners, not only within each State, but throughout Australasia, for the promotion of medical science and the welfare of those who devote their lives to it.

Nearly 20 years have passed since we last assembled in Melbourne, and within that time the change already in progress in the popular attitude towards Science has become more and more marked. The great generalisations of the conservation of energy and of inorganic and organic evolution have little by little exercised their leavening influence; and experience has begotten a new regard for Truth, not as something unstable, needing blind defence at all hazards, but as a glorious certainty that error cannot touch, that can only be revealed in greater grandeur and clearer vision by the deepest research, the most unfettered thought. We have now no hesitation in viewing the living body as a machine, never generating energy, but ever transform-

ing it, using the hidden force of food for the maintenance of bodily heat and for all the manifold activities of life, till it escapes in degraded form as radiated heat. The engines of the latest greyhound of the Atlantic cannot compare in efficiency with the wing-muscle of a bird. As the astronomer resolves the starry world largely into two great streams of stars moving in opposite directions, yet all made up of similar elements, so the physicist contemplates life in its two great divisions, so like, yet so unlike,—the vegetable world by wondrous acts of synthesis creating stores of energy, that animal life may set free for its own purposes, unloosing the bonds so strenuously tightened, converting the secret tensions into the energy of new growth and work.

[Life is a chemistry, a bundle of fermentations, a complex of cyclical actions and reactions; and how close is the correspondence between the physics and chemistry of life and not-life. Witness the saturated chemical solution that is inactive till a microscopic crystal is added, when in a few moments the germinal impulse towards specific form spreads through the whole mass; or the injured crystal that heals itself in the mother liquid; or the metallic wire that under repeated tension strengthens itself in point after point that tended to give way; or the finely divided platinum, that by its colloid tension has power like a ferment to cause indefinite oxidation, a power that may be destroyed by processes akin to sterilisation, that may sicken, that may be inhibited by infinitesimal doses of poison. How marvellous, too, are the results the chemist has attained in studying the constitution of the actual life stuff. Serum albumin and egg albumin have both been crystallised. Albumose has recently been broken up, by means of water, alcohol and salts, into five different bodies, each obtainable in fairly pure state, with characteristic physical properties, solubilities and reactions. Emil Fischer tells us how, from the amino-acids, a hundred different substances have been manufactured nearly related to peptone. Dimly we begin to discern vague chemical forms of infinite intricacy, where proteid and carbohydrate and hydrocarbon are linked together in loose associations, the partners swaying in and out in endless rhythmic figures, each dissolution followed by a new integration. Such a conception corresponds only too faithfully with the enormous difficulties of biochemical study.

Yet the ultimate contrast between life and not-life remains as sharp as ever. In every chemical union, whether in life or not-life, a new substance is created; but for not-life here the matter ends, whereas every living being continually assimilates dissimilar things to itself, and multiplies in its own likeness. This contrast holds for the simplest unicellular plant or animal as fully as for the highest and most complicate type. It is difficult to realise the magnitude of the power to assimilate and multiply. One observer has estimated that, in the breeding of rotifers, if all the possible progeny could be preserved, there would be in the course of a year a mass of organic matter as large as the known universe. In the transplantation of cancer from one mouse to another, the cells introduced in the first tiny graft have multiplied by continuous division in different animals till the total issue produced was as large as a St. Bernard dog. The continuity of life is still more wonderful. Apart from the question of the ultimate origin of life from not-life, of which we know nothing, every cell now alive, no matter in what plant or animal, has come down in unbroken living chain from the beginning. Untold myriads of cells have perished, but in the direct line there has been no death. Each cell divides, and its parts again divide; death may end any particular chain; but the life that abides is continuous. This fact is easily grasped in the history of unicellular organisms, such as the lower forms of bacteria, where multiplication by division is simple, without apparent formation of spore, without conjugation of sex. In the higher forms of bacteria the spore is but a specialised part of the living cell, in which the continuity of descent is focussed. In the more complex forms of vegetable and animal life the body perishes, but in the reproductive cells, with their wonderful reductions to unsatisfied forms and their subsequent conjugation, with all the multiplication that follows till the new individual is complete, with the new specialisation of germ cells by reduction and the new conjugation, here, as truly through more abstrusely, life that abides is unbroken. In this sense, parents and offspring are one.

In contrast with this essential continuity is the constant tendency to individualisation. The chemistry of immunity, with the history of precipitins and lysins, indicates how profound and intimate is the difference between one animal and another, one individual and

another. Fundamentally, no two living cells can be exactly alike. Each is the product of a particular inheritance and a particular environment. In a bacterial culture, under laboratory conditions, the variations of environment may be reduced to a minimum, but can never be entirely suppressed. The more complex the organism, the greater the play of environment. With bacteria, such as those of anthrax, brief changes in environment may affect the individual, but not the generations that follow. More profound and continued changes in environment produce results of more permanent nature. If culture is continued for six weeks at 42° or 43° C., no spores form, and the virulence is attenuated, so that inoculation does not produce any outward symptoms even in baby mice or baby guineapigs. If the altered bacilli are now grown at the most favourable temperature, 37° to 38° C., spores form, but the culture retains the same degree of attenuation. Chemical agencies may act in the same way, as when transmissible variation is produced by culture in carbolised media. The reverse process is even more instructive. Pasteur showed that the weak vaccinal culture may be restored to full toxicity by transfer through very young animals to older animals, and from less resistant to more resistant species. Here the change occurs in successive generations of bacterial cells multiplying within the body, and nourished by the body fluids. Transmissible variation is not limited to such qualities as the power to form virus. The mode of life may be much more profoundly changed. Neisser and Massini have succeeded in so cultivating the *Bacterium Coli Mutabile*, that some individuals in a culture acquired the power to ferment milk sugar, and this power was transmitted through several generations, and was retained when the organisms were sown on other media.

In higher forms of life, only those acquired properties can be inherited which affect the reproductive cells. But these cells obey the law that all protoplasm bathed by the same lymph must have the same colloid equivalence. They are affected in greater or less degree by toxic conditions of the general tissue fluid. In fact, we are only beginning to understand how the whole body, including germ cells, as well as somatic cells, is nourished in full communion of parts. Sir James Paget long ago taught that every organ in its nutrition is complementary to the rest of the body. The history of the evolution of sexual char-

acter is the most striking illustration of this doctrine. Recent experiment shows us a little of the underlying chemistry of the process, though our knowledge is still comparatively superficial, and still "one deep calleth unto another." If some of the old form of tuberculin is inoculated into the arms of infants, a local papule with special characters will appear in those who have any form of active tubercle, and even in those who have traces of healed tubercle. If a drop of one per cent. watery solution of purified tuberculin is put under the lower lid of child or adult, inflammation of the conjunctiva follows in those with any form of active tubercle. With skin or eye, the non-tuberculous remain unaffected. This is a relatively simple instance of the mode in which local disease may produce subtle effects in far distant parts of the body. Ancient doctrines of mysterious sympathies have been replaced by knowledge of harmonies, of inter-related digestive actions, of responsive leucocytosis, of the relation between the life of the organs and our conscious and unconscious mental life. Such remote actions are in every case the product of a long series of cumulating acquirements, each step being an adaptation of the demands of the environment on the living organism. While, therefore, it is certain that acquired characters are heritable only in proportion as they affect the germ cells, we must remember that no cells, not even germ cells, have a life wholly apart. Those who believe with Lamarck in the inheritance of acquired qualities have been asked if they think that, when a man develops his muscles by exercise, his brother's children will thereby be modified in like manner. Somatic cells and germ cells are brothers in a very different sense, nourished by the same body fluid, through which they act and react upon each other. This is not mere hypothesis, but has a firm foundation in the facts of inherited immunity.

It is universally conceded that evolution is the response of the organism to the demands of environment. If this response does not increase from generation to generation, the weeding out of the irresponsible will be powerless to produce progress. It can at best only prevent retrogression. But if the response is progressive, natural selection, or, in other words the elimination of the unfit, becomes a factor of the utmost importance.

Our knowledge of the laws that govern inheritance of parental qualities has been greatly enriched by the re-discovery of the

experiments of Abbé Mendel, and by the work of his followers, many a dark place being illuminated by the theory of dominant and recessive characters, a theory that accords remarkably with the latest observations of the actual process of fertilisation. De Vries, by his experiments on the breeding of *Oenothera*, has gone far to prove that, at least in many cases, development comes at a leap, and not by slow visible cumulation of characters, though doubtless behind the obvious leap there is a hidden cumulation of results, until a critical period of change supervenes. In descent, the family type is more potent than the individual, and the racial type more potent than the family; but the wave of scepticism concerning heredity has almost spent itself, leaving us with more sure knowledge, purged of ancient errors or excess. The family histories of polydactylism, of hæmophilia, of gout, of cancer, have long been conspicuous. Recent research shows how far reaching is the hereditary tendency. Nettleship has added to his series of cases of hereditary carolliform cataract a most extraordinary history of congenital night-blindness in a family residing in the south of France, near Montpellier. The pedigree includes 2121 persons in 10 generations since the year 1637, and 135 are known to have been night blind. Biometric methods tend to show that mental characters obey the same laws of descent as physical. But the doctrine of evolution has become independent of particular methods of interpretation. Whatever weight we may give to elimination of the unfit or to progressive adaptation, however we may view the struggle for existence, the central truth stands firm, and for us needs little further warrant than the fact that every living being in its embryonic development displays in brief the story of its evolution.

If there is still a radical division of opinion concerning the hereditary factor of individuality, there is full agreement concerning the other factor, which consists in the environment of each new life from its first inception. Before birth, after birth, streams of influence are flowing in upon it. Now it thrives in favouring conditions, now it is stunted by mal-nutrition, now it is poisoned by toxins that excite no countervailing reaction, now it adapts itself to conditions that at first promise disaster; every impression leaves its mark; so that the disciples of Weissmann, who deny the transmission of acquired

qualities, proclaim the more forcibly the importance of physical, mental and moral culture. In proportion as man holds off from man the unsparing law of elimination of the unfit, there should be more constant, more intense, more enlightened education of every faculty, for if the whip of suffering is removed, the downward course is all too easy, all too sure.

When we attempt to grasp the nature of Life, we find ourselves in presence of a great mystery. Comte long ago remarked that living beings are better known by us in proportion as they are more complex. Our greatest certainties are those of our own consciousness. The imaginings of poet, musician, architect, shadowing forth tragedy, sonata, cathedral, are not mere transformations of physical energy. Bald materialism is possible only by abstraction of essential facts. As Gissing says in *Henry Ryecroft*, "rather I would think that despair at an insoluble problem, and perhaps impatience with those who pretend to solve it, bring about a resolute disregard of everything beyond the physical fact, and so at length a self-deception which seems obtuseness."

Hence it is cheering to find, as the motto of one of the most popular manuals of physiology, the saying of John Hunter that life produces organisation, but organisation cannot produce life. Nevertheless, the phenomena of mind are all based upon sensation and reaction to sensation, and these again on the primitive attractions and repulsions seen in the simplest unicellular organisms. Desire and will were foreshadowed in the first living element. Yet it is difficult, if not impossible, to avoid the belief that life came out of not-life, or at least arose amidst not-life. Was Leibnitz then right in contending that nothing is dead, that life is universal? Is not Meredith nearer the truth when he sings of earth

"She being Spirit in her clods."

The phenomena of radio-activity and the development of electrophysical theory have broken down the bounds between matter and energy. Philosophy long ago proclaimed that matter became nothing if all its qualities were abstracted, and now it is a widespread belief that matter is but focalised energy, so that the evolution of matter, inorganic or organic, becomes the evolution of symmetric foci of energy. Shall we shrink from this marvel of mathematics? What are all the glories of light and colour, in sunset and sunrise, and in all the wonders of earth and sea? Outside of

living beings, they are vibrations of ether, which we interpret as colour according to the rate of vibration. What is music but our interpretation of aerial vibrations, which we appreciate as melody and harmony according to an exact mathematic. Let us rather hold that physical energy is in the last resort the expression of the Divine will, that the physical and the spiritual are not heterogeneous in the sense that one cannot act upon the other, that in every manifestation of energy the physical and the spiritual are both present, and that the history of the evolution of life has been the specialisation of organs through which the celestial mathematic is interpreted more and more fully in finite consciousness. If we believe in the Divine Immanence, we must hold that Immanence is perfect in all things in accordance with their power of containing it; and with growing capacity, who shall limit the new Synthesis? But we do well to remember that Meredith, who proclaims the universality of the spiritual, tells us also as to the higher knowledge of Earth,

"For the road to her soul is the Real,"

and how, in his vision, there is no room for superstition, or partial variation, or any of the vagaries of pseudo-science, for

"Around the ancient track marched rank on rank
The army of unalterable law."

With such conception of life, however shadowy it may be, we can base the ideal firmly on the real, or the real on the ideal, knowing that the one cannot be estranged from the other; and we may thus attain a more solid comprehension of the meaning of evolution, of individual development, and of personal, family, social and national duty.

The medical profession has for its special function the culture of human life, and it is well that from time to time we should seriously ask ourselves how this great trust is being discharged. Such a survey, however imperfect, must aid us to realise the vast extent of our responsibilities, entering into every part of life,—birth, infancy, childhood, adolescence, maturity, decline, old age and death. How many images these words evoke, how complex the problems that are involved. It is scarcely necessary to say that the medical profession is only one of the agencies concerned, and that, whether changes are for better or worse, only part of the praise or blame can attach to it.

The first question that fronts us is the unsatisfactory state of maternal mortalities. Professor von Herff states that, at his own

hospital in Basle, among six thousand cases, not one death occurred from puerperal fever contracted in the hospital, and only five cases in all died from puerperal fever, every one of these being infected before admission. Nearly 82 per cent. of his cases had no rise of temperature. Australasian maternity hospitals in various degrees approach towards this record. The Sydney Women's Hospital in 1904 reported ten years' work, with nearly four thousand cases, and not one death from puerperal sepsis. It is not a question of fine homes or comfortable surroundings. In outpatient practice, amidst the squalour of East London, the British Lying-in Hospital recorded nearly thirty thousand cases with only three deaths from septic causes. Yet the cruel fact remains that, in England and Wales, there has been practically no lessening of the combined mortality from puerperal fever and accidents of childbirth during the last forty years. Almost the same might be said of Victoria. Medical practitioners vary in their grip of aseptic methods; but the lack of progress depends chiefly on the nursing. In England and Wales, less than half of the births are attended by a medical practitioner. It is not too much to claim that out of every ten deaths from puerperal sepsis, nine are probably preventible. A Midwives' Bill, somewhat on the lines of the British Act, is urgently needed in Australasia, so that proper training and registration may be compulsory.

The fall in the birth-rate has been deplorable. In England and Wales, between 1870 and 1905, the crude rate fell 23 per cent., and among mothers in childbearing ages the fall was 29 per cent. The highest rate was 36.3 in 1876, and the lowest 27.2 in 1905. The Registrar-General believes that 73 per cent. of the fall is mainly due to deliberate restriction. The birth-rate of London for 1906 was the lowest on record. Sidney Webb quotes a Friendly Society, composed practically of thrifty artisans, in which the birth-rate during the decade ending 1905 showed a fall three times as great as that seen generally during that decade in England and Wales. Speaking generally, it may be said that the fall is not noted so much in the highest or the lowest ranks of society, but is strongly marked in the middle classes. Australasian statistics reflect only too faithfully this widespread tendency, though since 1903 the tide appears to be slowly turning. In New South Wales and New Zealand the fall extended over 20 years, but in Victoria the loss was

concentrated into the ten years ending 1902. As far as this downward movement represents an increased recognition of responsibility on the part of parents, some extenuation may be pleaded; but so far as it implies unwillingness to accept responsibility, it can only receive unqualified condemnation. It is not merely a question of limitation. In the United States it is estimated that there are two millions of childless homes. In Massachusetts one-sixth of the homes are childless, so that a century ago children were one-third of the population, whereas now they are less than one-fourth. The childless home lacks the deepest source of joy, and those who think they can cheat the purpose of marriage, without incurring risk of personal injury, simply deceive themselves.

In the saving of child-life there is a far more cheering tale to be told. The mortality is greatest in the first year, and half of the mortality of the first year occurs within the first three months. The cities still show much more unfavourable results than the country districts, but the disparity is not so great as in former times. In Victoria, for example, the infantile mortality rate for the metropolitan district has fallen from 168.5 in the years 1873-80 to 112.6 in the years 1901-05, while in the extra-metropolitan districts the rates have fallen in the same time from 101.6 to 84.4. The Australasian rates for 1901-05 vary from 125.9 for West Australia to 74.8 for New Zealand. Apart from the complex questions concerning the so-called "natural" infants, among whom the death-rate is at least two or three times as great as among others, and apart from the appalling results of inherited taint, the chief factor that decides the life or death of infants is food. Nothing can adequately replace the natural food, and to multitudes of mothers the spiritual reproach of Meredith might be literally applied:

"Look, woman, in the West, there wilt thou see

An amber cradle near the sun's decline:

Within it, featured even in death divine,

Is lying a dead infant, slain by thee."

When the natural food is not available, no substitute can compare with cow's milk. But in great towns, how difficult the milk question becomes. In New York, milk is usually 48 hours old before it reaches the consumer, and during hot weather the resulting evil is intensified. In the poorer streets in New York it has been estimated that even in midwinter the milk contains nearly two million bacteria per cubic centi-

metre, whereas in a warm month the number rises to over thirteen million. Even in fashionable streets the corresponding numbers were over three hundred thousand and over a million. In bad streets the numbers rise rapidly from morning to evening, a count at 9 a.m. perhaps giving thirty to forty millions, and at 7 p.m. ninety to a hundred and thirty millions. A federal text book on the milk question has recently been prepared by a conference of experts in the United States, and it recommends a definite programme under which milk would be classified as "certified" or "inspected" or pasteurised. Certified milk would come from dairies periodically inspected, the milk being frequently analysed, the cows tested by tuberculin, etc., and found free from communicable disease, the milk handled only by persons free from infective disease, the milk containing not more than ten thousand bacteria per cubic centimetre, and being not more than twelve hours old when delivered to the customer. Inspected milk would be somewhat lower in standard, but would be produced under similar conditions from cows tested with tuberculin, the milk not containing more than a hundred thousand bacteria per cubic centimetre. No other milk would be sold raw. All inferior milk, or milk of unknown origin, would be pasteurised. The question of adopting this programme is now under serious consideration. In any scheme for the supply of uncooked milk, immediate refrigeration at the dairy is the prime necessity. Municipal milk depots have been established in Liverpool, Glasgow, Bradford, and other places, but they are not a success financially. Kenwood voices a large body of opinion in preferring a system of "Infant Consultations," such as was inaugurated by the late Professor Budin, the directors recommending milk vendors who comply with their regulations. Excellent results have been attained in Philadelphia through the action of a Milk Commission of five medical men appointed by the Pediatric Society, a high standard of purity being fixed, certificates given to dairymen conforming to it, and all milk delivered in hermetically sealed bottles, with a slip certifying that the milk had been examined and found satisfactory within the last month. Pasteurisation may be replaced by the Budde process of sterilising by peroxide of hydrogen at 50° centigrade, so that taste and flavour are unchanged, and the natural ferments are preserved or restored.

Public opinion is awakening very slowly to the importance of the early training of little children. The main features of character are fairly defined before a child is three years old. Hence the levity with which many well-to-do parents leave their children during these years largely to the tender mercies of ignorant inexperienced servants is most deplorable. This is the time in which habits should be carefully formed, to constitute the basis of steady character. I would also appeal for the culture of the imagination of children, beginning with the simplest modes and proceeding to the highest. We are familiar with Mr. Gadgrind's Philosophy of Fact in "Hard Times." Edmond About, in his *Roman d'un Brave Homme*, speaks of the excellent education given to the hero by his father; but Positivism was already at work, and in the nursery of the next generation, the hero "pitilessly proscribed the most accredited legends, the most convenient hypotheses, the most official historic lies. The watch-word of the little class was to teach nothing to children that you cannot prove or explain." Poor baby positivists, is not this an over-true version of a widespread system, under which the imagination is stunted, the mental power shackled, the joy of life undeveloped.

We rejoice in the progressive legislation for infants and young children, especially for those most subject to neglect and cruelty; in the Acts for early notification of birth, for infant life protection; for children's courts; for inspection of schools and school-children; and in all the forms of philanthropic work for the little ones that kind hearts have prompted. But how much remains to be done! How much permanent loss of sight might be prevented, merely by disinfection of babies' eyes. The President of the American Medical Association, in his address last year, stated that unrestrained ophthalmia caused over 25 per cent. of blindness from disease; that over 30 per cent. of the school-children of New York suffered from defective vision, and that in 75 per cent. their mentality was impaired by causes yielding to curative measures of a simple and permanent nature. Does this statement seem exaggerated, or would you confine its truth to children who have grown up under unfavourable conditions? The answer is not far to seek. Clement Dukes examined a thousand boys on their entrance to Rugby between the ages of 13 and 15. Here are some extracts from his report: Lateral curvature of the spine in 445 out of the 1000;

pigeon breast in 126; bow legs, 64; knock-knees, 526; flat feet, 329; stammering, 70; hypermetropia, 40; myopia, 128; astigmatism, 27; colour-blindness, 12; mouth-breathing, 112; chilblains, 437; varicocele, right 4, left 92; albuminuria, 157. He adds that in no instance were slight defects registered. On the whole, though the results of the enquiries already begun in Australia will doubtless be much more favourable, I cannot but conclude that we are only at the beginning of our task in the conservation of health during childhood and youth.

In adolescence and early adult life, enormous evil is wrought, especially in the upper classes, by a too restless excited life. Steady work, however hard, seldom injures health. Adequate sleep is a full corrective; but unsteadiness and restlessness, with irregular meals, irregular sleep and continual excitement, induce the neurasthenia that is so common. People are worn out long before their time. Unfortunately it is precisely those of unstable neurotic type who are most liable to such worry of the nerves, and to the degeneracy that follows. There is, however, another form of neurasthenia, that Dr. Hellpach laid stress upon in his inaugural address to the Technical High School of Karlsruhe in 1907, the factory neurosis begotten by mechanical thought-killing monotony. Readers of Dickens will not need to be reminded of the remedial philosophy of Mr. Sleary in "Hard Times." Let machinery and routine have full sway in all things, and, as Dickens says, the heart of infancy will wither up; the sturdiest physical manhood will be morally stark death; and the plainest national prosperity that figures can show will be the Writing on the Wall.

Concerning middle life, added experience serves but to emphasise the disastrous results of over-strain, whether mental or physical. Too strenuous a life reacts on the whole metabolism of the body, with inevitable auto-intoxication, gastro-intestinal, muscular, articular, cerebral. Hence come dyspepsia, muscle pain, gout, migraine; but more insidiously come all the troubles of kidneys, heart, and arteries that are associated with high vascular tension. Excesses in flesh food, whether in red meat or in white, commonly attend the strenuous life, while Chittenden's researches have proved how little proteid food is necessary. Excesses in alcohol are almost as common, especially when brain and heart begin to weary with the constant

strain. The moral is obvious, but obedience so often comes too late. Many books have been written with elaborate directions for the management of old-age and the decline of life, but the secret of happy old-age lies in sound family history, healthy joyous childhood, active temperate manhood and womanhood, recreation following work, imagination redeeming routine. These are the simple but essential antecedents that no special regimen, no quack nostrum can ever replace.

On questions of disease, only a very brief comment can be made. Bacteriological laboratories have not only reconstituted our notions of pathology, but have supplied us with new and potent weapons of defence. Antitoxin has robbed diphtheria of its terrors. Hydrophobia can be prevented even after the bite. Chantemesse claims that acute dysentery, if treated early, yields with certainty to his serum. Koch's discovery of the specific comma bacillus and of its life habits has brought cholera under comparatively easy control. In the relations between disease in man and disease in the lower animals, a whole world of new knowledge has arisen. The proved fact that the bacillus of plague comes to man through the rat and the rat flea, has placed *pestis major*, for European communities, within the list of manageable diseases. Recognition of the fact that yellow fever, like malaria, is transmitted by the mosquito, enabled the Americans in ninety days to convert Havana into practically a clean city. In the Panama Canal works in 1882, 1900 men were employed, and the mortality was 112 per 1000; whereas in 1905, under American control, 25,000 men were at work, with a mortality of less than 1 per 1000; but no less than 4000 men were engaged in exterminating mosquitoes. In 1907, the Chief Sanitary Officer told the graduating class of Cornell that there had been no yellow fever on the isthmus for over a year; that malarious fevers had been reduced to a minimum; that the special mosquito of yellow fever had been so reduced in numbers, that yellow fever would not spread even if it were introduced; that among the 6000 Americans connected with the Canal work, including 1200 women and children, there was very little sickness of any kind, and the general appearance was fully as vigorous and robust, as among a similar number of people in the United States. In Ismailia in 1897 there were 2089 cases of malaria; in September, 1902, Professor Ross was placed in charge of operations; in 1905, there were

only 37 cases, and nearly all of these were relapses. Here, also, I may remind you that Colonel Sir David Bruce, the hero of Malta fever, of tsetse-fly disease, and of sleeping sickness, was a native of Melbourne, born in Prahran.

The work of the health departments, civil and military, shows many records of glorious achievement. In rapid sequence upon improved dietary, beri-beri has been banished from the Japanese navy, and reduced to small proportions in the army. In Oku's army, Seaman tells us, there were less than 200 cases of enteric fever and less than 400 of dysentery, and only 40 deaths; whereas in the Boer war, certainly under worse seasonal conditions, Britain lost more than thirteen thousand men by preventible disease. In civil practice the mortality from enteric fever in England and Wales has fallen from 384 per million in 1869 to 89 per million in 1905; and this is in addition to the immense decrease in the mortality from so-called simple continued fever, which was mainly enteric fever in disguise. Similarly in Victoria, the mortality from typhoid fever has fallen from 369 per million of the population in 1890-92 to 132 per million in 1906. In 1905 the rate was only 100. But defective drainage and water supply in the country districts still produce the inevitable results. Thus in 1906 the rate for the metropolitan district of Sydney was 118, while that of the country districts of New South Wales was 212. If the mortality from typhoid fever throughout the Commonwealth were brought down to the level that obtains in England and Wales 270 lives would have been saved in 1906 alone.

The great reduction in the death-rate from tubercle (the mortality from phthisis in England and Wales has fallen 50 per cent. within 40 years) must be attributed mainly to the steady influence of the hygienic measures that have been quietly and persistently pushed forward by the various Boards of Health. The work of the British Royal Commission on Tuberculosis has established the unity of the disease. We have learnt that bovine and human bacilli are different strains of one organism; the bovine more toxic, shorter, growing slowly on culture media, broth cultures tending to remain alkaline; the human less toxic, longer, growing more rapidly, broth cultures tending to become acid; these distinctions, with other minor points, serving fairly well as tests to determine the origin of any strain. The

experts employed by the Commission reported that, out of 60 cases of human tuberculosis, 14 belonged to the bovine type. Of 28 cases of alimentary origin, 13 were of bovine type. Among these 28, the glands of the neck were studied in nine, and three gave the bovine type. Of 19 with abdominal lesions, ten gave the bovine type. On the other hand, in three cases, bacilli of human type, after repeated passage through the calf and the guinea pig, took the bovine type. It was also discovered that, when human bacilli are introduced into calves by subcutaneous injection, the bacilli become widely diffused, and may persist for months in organs that appear healthy to the naked eye. These results are extremely serious, in view of such records as those of the Leipzig abattoirs, where of 9303 cows slaughtered, 43.51 per cent. were tuberculous, or the estimate of the late Professor MacFadyen that in English cowhouses 30 per cent. were infected. Gilruth, reporting in New Zealand for the three years ending March, 1905, found over 10 per cent. of 45,742 cows tuberculous. Something, however, may be said on the other side. Findel, of Breslau, found that with guinea pigs, using Reichenbach's apparatus for respiration, if at least 62 bacilli were inhaled tuberculosis followed in every case; but by the digestive way, a dose six million times as large was necessary to be sure of producing tubercle in every case, and a dose nineteen thousand times as large always failed. It must also be remembered that, in England and Wales, pulmonary tuberculosis causes 69 per cent. of the total mortality from tubercle. Hence, notwithstanding the experiments of Calmette and the theory of Behring, the frequency of the alimentary conveyance of tubercle may easily be exaggerated. Another aspect of the whole question is given by Newsholme's statement that the phthisis death-rate varies very closely with the total poverty-rate. Apart from poverty, Newsholme finds that the rates in the chief European countries vary chiefly with the degree of segregation of phthisical patients in general institutions. For the individual consumptive in the early stages, sanatorium treatment is full of hope. When the disease is far advanced, the main objective must be to prevent the spread of infection, either by adequate precautions in the home, or by segregation in suitable institutions. In Victoria, a notable step forward was taken at the end of 1907, when the most populous centres were declared by the Board of Public Health

to be affected with the dangerous infectious or contagious disease, pulmonary tuberculosis, with the consequence that notification of all cases became compulsory. Enforcement of this notice is still contingent on the provision of adequate hospital accommodation for necessitous cases. The full development of these measures, coupled with more general appreciation of the value of fresh air and sunlight, should make possible at no distant date another reduction by one-half of the deadly toll levied by the great white plague.

Concerning the general progress of Medicine and Surgery, there is much cause for gratitude. Increasing knowledge of anæsthesia and continued developments of antiseptic and aseptic methods have made possible the addition of wide kingdoms to the domain of surgery. Improved methods of diagnosis have made our knowledge of disease more precise, and have opened the way for more scientific treatment. New theories of chemical solution and of electrolytic dissociation have thrown great light on the action of drugs. A huge department of physical therapeutics has been created, and is already being threatened by the evils of excessive specialisation. More attention is being paid to the adjustment of the individual, the care of the unfit, the neurotic, the insane. An enlightened press is doing much to quicken the public conscience in matters of public health. The standard of professional education is rising. The spirit of research is becoming more and more widespread. But so much remains undone or imperfect. We are still weighed down by ignorance and prejudice. When shall we be free from traces of the incubus that Wells so finely depicted in the *Story of a Simple Soul*:—"Above them, brooding over them, I tell you there is a monster, a lumpish monster, like some great clumsy griffin thing . . . like pride, like indolence, like all that is darkening and heavy and obstructive in life. It is matter and darkness, it is the anti-soul, it is the ruling power of this land, Stupidity. . . . But for that monster they might not be groping among false ideas to hurt one another so sorely; but for that, the glowing promise of childhood and youth might have had a happier fruition; thought might have awakened in them to meet the thought of the world, the quickening sunshine of literature pierced to the substance of their souls; their lives might not have been divorced, as now they are divorced, from the apprehension of beauty that we favoured ones

are given,—the vision of the Grail that makes life fine for ever." Translate these burning words of the spirit into the humbler phrases of the body, and we have the aspiration that animates the medical profession, an aspiration that must surely realise itself step by step in actual fact.

In this mood I would bring my address to an end. The medical profession owes to the public a service of thought as well as a service of action. We shall not fail in the service of action. Let us see that we fail not in the service of thought. And now we go to our Sections, there to rejoice together over our successes, there to take council in our difficulties, there to hearten one another for all that lies before us; and so back to our various spheres of duty, made stronger by our fellowship, humbly striving to have more adequate answer to the questions—What hast thou done, what hast thou thought?

THE ADDRESS IN SURGERY.

Delivered at the Australasian Medical Congress, Melbourne.

By B. Poulton, M.D., Adelaide,
President of the Section of Surgery.

My first duty is to express my profound sense of the honour conferred upon me by the Committee of Congress in appointing me to this chair—an honour which I am deeply conscious might have been, if I may say so, more fitly bestowed upon another more worthy of distinction.

As one who in some measure assisted in the early Congress movement initiated in Adelaide, as a resident of South Australia, and a humble worker in the surgical world, I recognise that, in laying this burden upon me, you desire to honour the sister State in my person. I am deeply grateful, and only wish it were in my power to evidence a complete justification of your appointment.

To take up the mantle left by my predecessors is to assume a great responsibility, and one which I feel little fitted to sustain. The duties of office have been made easy and pleasant by the long and strenuous labours of the secretaries of the section, whose activities and resourcefulness have been so generally recognised by members, and to whom I feel very much indebted for the careful and orderly arrangement and conduct of the proceedings.

Previous Congresses, by directing special attention to particular subjects, have exer-

cised a potent and beneficial influence of far-reaching extent; have helped materially to illuminate certain fields of work, and have indeed done much good by stimulating individual research in many directions. One recalls the late Sir Thomas Fitzgerald's address of 1887; its lively appreciation of Lister's antiseptic method, and its indication, in strong, almost prophetic, lines, of the now universally adopted aseptic procedure; the admirable exposition of disinfection in surgical practice, given by Dr. Camac Wilkinson in 1892, containing, I think, the first full description of modern aseptic technique published in Australia. One remembers the original work and investigations of Maunsell, the valuable contributions to the literature of hydatid disease by Davies Thomas, Gardner, Professor Stirling, Dr. Verco, and others; and one feels assured that the Section in its present session has already presented much of great interest and value.

To worthily follow such strenuous leaders in surgical work is, I feel, by no means a light employment. Not the least difficult task has been the selection of a subject worthy of this occasion, a subject to which I might venture to direct your attention from the point of view of one who, whilst engaged in general practice, has some special opportunity for the practice of surgery.

The last two decades have witnessed a very remarkable change in the distribution of medical work; for whilst formerly the practitioner was accustomed to refer a large proportion of his more serious surgical cases to hospital surgeons, during these later years there has been shown a growing tendency towards the enlargement of his functions, and the retention of a fuller responsibility.

There has followed a more widely diffused study of surgical problems, an extended experience of operative measures, and a keener interest in advanced surgery in all its departments. The country practitioner, who formerly devoted himself almost exclusively to general practice and the surgical operations emergency, is now, in many instances, one who carries out extensive operative procedures of the most intricate nature, and conducts for himself the whole treatment of cases which, at no very distant period, were referred to colleagues in the more populous centres.

With this impression in my mind it seems not unsuitable to discuss with you some of the tubercular infections which are of interest, as being more especially likely to fall into the

domain of surgery, and to emphasise their importance to the community, and to the medical profession.

In the discussion on tuberculosis in Dunedin, in 1896, lesions other than those in the lungs came prominently under notice; but there, as elsewhere, the preponderating importance of pulmonary tuberculosis, perhaps unduly minimised the value to be attached to the consideration of many other affections produced by the invasion of the bacillus.

The community at large, and the medical profession generally, is fully impressed with the all-pervading prevalence of phthisis pulmonalis, and the air is full of projects for its more efficient subjection, its more efficient treatment; but I am doubtful whether the public, or even the professional mind, is as fully seized with the wide-spreading damage done by the invasion of other organs of the body, with the consequent impairment of function, loss of health and, in many cases, cases, of life; in fine, with the injury done by the tubercle bacillus, apart from that wrought in the lungs.

As indicating the comparative incidence of tubercular affections, the following figures bear out my contention:—

In the Adelaide Hospital, during the six years ending in 1907, of 819 cases of tubercular disease treated in the wards, 42·4 per cent. were infections of other organs than the lungs. During the same period, of 487 deaths occurring in the city of Adelaide from various forms of tuberculosis, 23 per cent. were infections apart from the thoracic viscera, and of 4032 deaths registered in the Commonwealth of Australia during the year 1905 as tubercular, over 19 per cent. were due to lesions in other parts of the body.

Considering, further, that many cases which die of pulmonary disease have been first attacked elsewhere, and have really died from a secondary infection, one realises that the incidence of surgical tuberculosis is even greater than that to be gathered from death statistics, and that it is a very important factor in influencing the health of the people.

Nor is it by any means certain that adequate value is attached to the infective potentialities of the disease when unaccompanied by manifest pulmonary involvement. It is indisputable that many forms of surgical tuberculosis, in their advanced stages, may distribute infectious material capable of transmitting any form of tuberculosis, and yet how little attention is directed to this

fact, which is apparently ignored in public sanitary regulations.

The necessity of destroying infected sputum is generally acknowledged and inculcated; but the virulent discharges from bone, joint and abdominal visceral lesions, which are equally dangerous to health, are viewed with less fear, are not so usually treated as dangerous, nor destroyed with the like care. Again, the very efficient methods of the sanatorium for the segregation and treatment of pulmonary phthisis, even when combined with the institution of asylums for the incurable cases, leave much work undone, so long as similar sanatoria and homes remain to be founded for the care of a large class of germ-distributing sufferers, afflicted with other manifestations of tuberculosis, and the attack on the spread of the disease will certainly be incomplete until similar institutions are available for many of the advanced cases of surgical disease, especially those occurring among the poor and friendless.

I think, too, the time has arrived when fuller and more particular arrangements should be made for the hospital treatment of all tubercular cases. They should be removed from the general wards and specially housed in a separate part of the hospital, where their aggregation would be of advantage for treatment, for collective observation, study and clinical research. When possible, the ward should be open on all sides, the roof and floor the only fixed parts, and there should be ready access to a garden. In city hospitals, with no available open spaces, the nearest approach to this ideal will perhaps be best attained by placing the wards on the top of the building, with suitable provision for getting the patients even then out into the open air.

May I hope that the new hospital so soon to be built in Melbourne will surmount the difficulties of site, and provide in the centre of the metropolis a set of wards well adapted for the necessary hygienic treatment of all sorts of surgical tuberculous patients. Such an installation would not only be of immense continuous service to the inmates, but stimulate endeavour in the same direction throughout Australia.

Notification of infectious disease is on its trial in Australia, and not yet of universal application, even for phthisis. For the subjection of this disease it is of undoubted benefit, and, personally, I think the method should be expanded to include, if possible, all

cases of declared tuberculous infection of any organ. When the health authorities take cognisance of all cases of consumption, should they not also be advised of all cases where a tuberculous process in any part of the body is likely to disseminate disease, especially in those attended by the discharge of broken-down tubercular material.

It may be suggested, why draw special attention to these tubercular affections in Australia, a land which is so generally and so rightly extolled as possessing a climate peculiarly inimical to the free growth of the bacillus? For this reason—That while, if the advantages of the climate are realised and utilised to the utmost, the tuberculous subject is indeed placed in circumstances favourable to recovery, the facts remain that the disease has been, and is constantly being, introduced by the immigrant; that many parts of the country are already infected; and that while the free air and the sunlight are generally present in profusion, here, as in the old world, the individual does not fully realise their value, nor use the air and the sunlight as he might.

We all know that tuberculosis often occurs in sparsely populated, sunny, country places; and we also know that the defective housing of the poorer, uneducated inhabitants is a potent, perhaps a main factor rendering this possible. The dark, unventilated hut or cottage, so often found in the open country, comes as a positive shock and surprise to the visitor, and explains perhaps to a very considerable extent the occurrence of disease even in the otherwise healthy arid interior of the continent. A great deal has yet to be learnt by the rural and bush inhabitant of Australia as regards domestic sanitation, and the care to be exercised in preventing the infection of the domicile. In a limited, though a different sense, it is true that "all houses wherein men have lived and died are haunted houses."

And, further, it is necessary that we should take into consideration the fact that bovine tuberculosis exists to a very considerable extent, not only in the coastal and more densely-inhabited districts, but also, though in a lesser degree, in the remote central regions of the country, and that in addition to the inevitable consumption of infected milk; animals suffering from tubercular lesions are, with a fine disregard of consequences, not infrequently used for food, even when known to be affected. There is apparently little doubt that many abo-

rigines in South Australia and Queensland have become tubercular after eating the imperfectly cooked flesh of tuberculous oxen.

Recent investigations seem to warrant the statement of Cornet that the bacilli of human and bovine tuberculosis are the same organism modified in their activity by change of host. The English and German commissions of investigation both agree that the bovine bacillus is found in a considerable percentage of the cultures made from human tuberculosis, and the bovine bacillus so obtained has been shown to cause general tuberculosis in the ox. The majority of recent investigators disagree with Koch, and maintain the practical identity of bovine and human tuberculosis. Not only, then, may a tuberculous infection be derived by residence in the bush house or hut—perhaps the temporary home of a health-seeking visitor—but it may occur from the ingestion of the products of infected stock.

The ultimate result of many a tuberculous process is largely influenced by the recognition it receives during its early stages, and by the treatment to which it is subjected so soon as it becomes manifest.

Unfortunately the commencement of tuberculous disease is often so insidious and attended by such trifling modification of function that it becomes well established before surgical aid is sought; and not even then is a positive diagnosis made so rapidly and so certainly as is desirable, or even necessary.

We have at present no reliable method of blood examination to rely upon in diagnosis. It is not always possible in surgical cases to examine tissue or fluids for the bacillus, to make cultures or inoculation tests; nor are the diagnostic value and safety of tuberculin injections yet fully ascertained, and while valuable information may often be obtained from X-ray pictures of bone and joint lesions, even in them radiography can seldom give more than ancillary aid in defining the condition.

The conjunctival reaction test of Calmette and Wolff-Eisner is now under close investigation, and promises to be of great value. My experience of its use is too recent to enable me to determine whether it is always innocuous and to be relied upon implicitly, but it has manifest advantages as compared with Pirquet's cutaneous reaction method, or the injection of Tuberculin.

While, however, specific diagnostic aids cannot be considered to have arrived at a safe

perfection, they may be of distinct value in doubtful cases, and there is every indication that they will be more largely used in the near future, and will so help in the earlier detection of many an otherwise obscure pathological condition.

Tuberculosis is more largely curable than is generally acknowledged, and although wide infection may rapidly supervene unexpectedly, and irreparable local damage is often done before cure is complete, still in many cases treated early the expectation is favourable.

The care of a localised tubercular lesion includes not only the measures directed to cure the local disease, but those which are required to repair, as far as possible, damage already done to the part, and for the restoration of function, and it must be always remembered that the local lesion is often associated with infection of other parts of the body, and that during its course there may be dissemination by means of the lymph and blood vessels, that the local lesion may kill by local damage, or by causing a wider distribution of disease.

The general principle underlying treatment recognises the power of the organism to destroy the germ, the possibility of the disease being cured by natural processes; and so the necessity in every case for using all means tending to maintain the general health at its highest possible standard, whilst local treatment is adopted for the local conditions.

In all forms of tubercular disease, then, a prime consideration is the maintenance of the general health by placing the sufferer in such circumstances as shall best fit the tissues for their combat with the organism and its toxins.

A liberal and nutritious diet is, of course, necessary; residence, if possible, away from populous centres, and in the country, or in town an open-air life both day and night. Antiseptic and aseptic methods have exercised a potent and never-to-be-forgotten influence, have rendered possible in some instances the complete removal of the germ-infected focus; in others, its partial removal or destruction, and, by decreasing the risks of blood-poisoning and general infection, have been of the most signal service to surgery.

While modern methods and improved technique have favourably influenced the course of many forms of tubercular disease, and have enabled the surgeon to expect better results, there still remains a number of cases in which operation is not required to effect cure, or in which it is impracticable, either from local

conditions or from the involvement of the lungs or abdominal viscera; and notwithstanding the better results now obtained where cutting operations are indicated, there exists a strong tendency towards conservatism and the limitation of operations of a mutilating nature to those cases in which they are absolutely unavoidable.

Many cases so treated, with special means carefully directed to secure functional rest of the implicated part, will make steady progress towards a satisfactory recovery; but in others more intensely infected, or perhaps less resistant from feebleness of constitution, the local process may advance; or the disease may not have come under treatment until extensive damage is already apparent, and areas of tubercle are undergoing retrograde change. While even some of these may ultimately recover without active interference in many, much may be done by the removal of degraded tissue, or even in some cases of the whole part involved, and it is often desirable to operate not only in cases where extensive mischief has already occurred or threatens to increase, but to hasten a recovery which is probable but protracted.

Typical examples of the advances made in treatment since the dawn of the Listerian era are afforded in the very successful results following the complete removal of tuberculous lymphatic glands, such as those found infected in the arm and axilla, by absorption from an inoculated wound of the hand; the relief afforded by the free clearing out of cervical glands, the seat of a progressive tuberculous adenitis; the radical method of dealing with the so-called cold abscess, so often found in connection with disease of bones and joints, by which the ultimate products of an extensive tubercular process are safely removed from the system, without the old danger of a mixed micrococcal infection occurring.

Even in cases, such as psoas abscess, where it is impossible to make sure of removing all the infected tissues, or the whole of the caseating debris, a careful aseptic technique enables one to rid the organism of the major portion with comparative safety, and a very fair prospect of its being able to make a good, ultimate recovery.

Abdominal surgery frequently presents striking illustrations of the power of the tissues to eradicate, or at least to inhibit, the further growth of the bacillus, after removal of tubercular ovaries and tubes; and in tuber-

cular peritonitis, where, without removal of any infected tissue, as a consequence of mere exposure by free incision and the evacuation of the ascitic fluid, recovery takes place.

Looking back over 25 years of active practice, and after reference to the available statistics, I have endeavoured to form an estimate of the comparative incidence of tubercular cases in surgical practice, and have come to the conclusion that there has been very little alteration in the prevalence of the disease. The numerical increase in hospital cases has been slight, in view of the increased population, and the apparent decrease of cases among the better placed classes of the community is probably a consequence of wider distribution among a much enlarged circle of practitioners. The system of compulsory notification of pulmonary tuberculosis has not existed long enough; nor been so universally applied, as to exert all that influence in diminishing the dissemination of disease which may be expected of it in the near future.

The lesions which come most prominently under treatment in South Australia are those of the hip, the knee, elbow, and ankle joints, the cases of spinal caries and psoas abscess, the cervical and other glandular infections, the rather numerous instances of genito-urinary tuberculosis. Dactylitis and invasions of tendon sheaths are comparatively rare, nor does one often see an instance of lupus. General peritoneal infection comes only occasionally under notice—very frequently bone and joint lesions seem to have followed alleged injury.

A considerable number come to town for treatment, having become infected, many of them, whilst residing in small, isolated, country settlements, not infrequently situate far in the interior.

As a rule, the nutrition of the patients is fairly good, and one so commonly finds tuberculous disease in persons presenting none of the classical features said to be typical of the so-called strumous diathesis that very little, if any, importance is attached to the absence of suggestive alterations in general habit of body or physiognomy. The tuberculous individual may, or may not, present evidences of the strumous diathesis, and is more likely to have become infected by common association than to have inherited any special predisposition.

Turning to the individual sites in which tubercular infection is found, the articular osseous systems present by far the most numerous instances, and spinal and hip affections are certainly the most frequent.

In hospital practice, spinal caries coming under early treatment gives, as a rule, satisfactory results, especially when opportunity is afforded for a period of continuous horizontal rest combined with extension, as a precedent to the prolonged use of fixation apparatus, such as a plaster jacket. The inflammatory process may often be modified by blistering, or cauterisation, so that in the early stages, and where pain is experienced, rest in bed is necessary. But the hospital patient more usually comes with marked curvature, and presenting collections of tubercular material demanding evacuation, or the abscesses having burst, there are sinuses and mixed infection. The unruptured abscess I prefer to treat after the method introduced in England by Professor Barker, and still think that the use of iodoform emulsion is beneficial, as inhibiting the growth of the bacillus, or the development and absorption of toxins. But whether any fixed antiseptic be used or not, I think free initial irrigation, with a mild antiseptic solution, is generally desirable. In these cases careful removal of so much of the abscess wall as is safe, and of all loose bone, should be effected. Satisfactory closing of the cavity may follow; but the operation has not infrequently to be repeated more than once. And even in these obstinate cases the method compares most favourably with any other which involves the insertion of a drain. Very occasionally has it been found necessary to attack the affected vertebræ from behind, either for the removal of sequestra of the bodies, or for laminectomy, in disease of the neural arches and pachymeningitis. Where sinuses communicating with the diseased spine are found open on the skin surface, and mixed infection has followed, similar antiseptic measures for the removal of tubercular debris and infected granulation tissue meet with a varying, but lesser, degree of success, and much difficulty is often experienced in opening up and exploring all the infected tracts. Radiography has already given us a means of more definitely localising areas of affected and necrosed bone, and so facilitating their more accurate removal. Its use, as has been already suggested, for the demonstration of the course and ramifications of sinuses, after filling them

with an impermeable, innocuous, metallic oxide suspended in fluid, may well be given a thorough trial.

I have never attempted to correct deformity by forcible extension and fixation, as I consider such treatment entails grave immediate risks, and is usually unwarranted by any reasonable prospect of ultimate benefit.

In hip joint disease, as seen in Adelaide, remarkably good results are attained in the majority of cases by steady persistence with the usual methods adopted for maintaining muscular and articular rest; and but rarely is there absolute failure even in those in which it is necessary to operate for the removal of collections of pus or sequestra.

I recall the not infrequent early excisions of this joint, which used to be done whenever extensive caries was accompanied by destruction of the joint, displacement of the head, and the infection of the soft parts, and am convinced that many of these operations were unnecessary. I have excised the hip joint in only 13 cases for all conditions, and find the indications for the operation becoming of increasing rarity. The best terminal result in a doubtful case—ankylosis, with a minimum of shortening and angulation—is less likely to be attained when excision is performed. My excisions of this joint have all been done in adults.

An energetic attack for the removal of necrosed bone and the purification of sinuses is often necessary, and may need to be repeated many times; and it would be better in some cases if a wider and more extensive exposure were made in the first instance, if sinuses were cut down upon and cut out, so far as is possible, rather than explored and curetted.

In tubercular affections of the knee joint, I think there is often much time wasted in endeavouring to bring about a cure by prolonged fixation, rest, counter irritation, and pressure, and that such methods are too often continued, even when the disease is progressing, and not only producing local damage, but interfering gravely with the general health. In this region the ready accessibility of the joint allows of full exploration, eradication of the synovial membrane and areas of affected bone without destroying function, and in the advanced conditions, where the cartilages and bone are more extensively involved, a complete excision, though it necessitates bony ankylosis, gives a better result and more useful limb

than that likely to be secured in any other way. Dr. Swift has recently drawn attention to the very good results he has obtained in children by a complete transverse arthrotomy and free exposure of the joint. But arthrectomy is the operation of choice in the child; excision the safest in the adult. Early exposure of the joint, and free cutting out of affected parts, is generally preferable to an expectant treatment when the ankle or the tarsal bones and joints are the seat of disease. In this region I have been impressed with the great liability to involvement of extra articular tissues, especially tendon sheaths, and with the infrequency of cases in which removal of the principal focus of disease leads to a satisfactory result. In disease of the ankle joint, or of the larger tarsal bones, of an advanced degree, a Syme or an amputation of the leg well above all infected tissue has been, in my practice, more satisfactory than partial operations and excisions, and should certainly take preference of all other measures in the debilitated subject, or one giving any evidence of pulmonary affection.

My experience of the shoulder joint is limited to a few advanced cases in adults, in whom I have found the best and most satisfactory results following removal of the head of the bone. Short of excision, one may limit the disease process to a series of changes terminating in quiescence, and the preservation of a fixed joint; but in view of the very great impairment of function entailed by ankylosis, the long period which must elapse before the arm can be used at all, and the risk of exhaustion, such radical treatment has much to commend it.

In the elbow, ankylosis at a right angle is the best termination one may expect in those processes which are arrested under the use of general measures; an early arthrectomy is indicated whenever there are indications of a complete involvement of the cartilages, and the instances in which prompt removal of a limited area of infected bone alone are followed by cure without ankylosis are rare to find. Subperiosteal excision in the adult, with removal of just so much bone as is necessary for eradication, with the preservation of function, is an eminently satisfactory operation.

Tuberculous affections of the lymphatic glands, chiefly those of the neck, come very constantly under notice and treatment, and are of grave importance, not only from their local significance, but as implying the possi-

bility of further implication of deeper groups of thoracic and other glands. Their presence is always a menace of wider extension.

Under suitable hygienic surroundings and appropriate treatment, they frequently undergo absorption, but the process may extend beyond the capsule, invade neighbouring tissues, and, in the resulting degeneration, extensive abscesses may lead to wide destruction, much disfigurement, and the occurrence of a mixed infection, with all its risks and consequences.

In the early stages, and so long as there is no evidence of periadenitis and destruction of the capsule, removal is not demanded nor advisable; but where the disease is progressing, and adjacent glands are becoming adherent to each other and the overlying parts, free excision of the whole mass by clean dissection, and without opening up affected tissue, should be effected with all the care and thoroughness which is necessary in other malignant diseases.

Where large abscesses have formed, and much overlying skin is involved, it may be necessary to defer excision until a preliminary evacuation of pus, with antiseptic precaution is followed by a diminution of active inflammation. Both here and when septic sinuses are present, free and wide removal of all affected tissue should be attempted, rather than partial scraping, and a reliance on antiseptics reserved for those cases where it is impossible of achievement.

It will be generally acknowledged that infections involving the genito-urinary tract frequently present conditions most difficult to control, and in many of them the disease is so widespread when the sufferer seeks relief that palliative treatment alone is applicable. Even when the testicle alone is affected, the onset is so insidious that the early signs may attract no marked attention, particularly when there has been a pre-existing venereal infection, and on the first examination it is common to find definite nodules in the epididymis, and even extension to the testis and cord. Considering especially the grave risks of an ascending infection, and the practical impossibility of complete extirpation when once vesicles, prostate or bladder, are involved, I think, in the absence of graver disease elsewhere, no time should be lost in removing epididymis and cord, preserving the testis whenever it is intact, and, generally, that any other partial operations should be

reserved for temporary relief where the system is widely affected.

The majority of cases where kidneys or bladder, or both, are involved have, unfortunately, foci of disease elsewhere, and in many of them the early urinary symptoms do not lead to a definite diagnosis being always made, nor in many is direct operative interference beneficial; but in this field of surgery more particular examination by the cystoscope and the ureteral catheter promises, in skilled hands, to be of signal service, and I think we should frequently resort to inoculation tests in doubtful cases, and place less reliance on the often futile search for bacilli in the urine.

I do not hesitate to perform nephrectomy and ureterectomy even in advanced stages of disease where the other kidney is working, but have never been able to satisfy myself that partial removal of a kidney is of much value. So far as I am able to form an opinion, little, if any, benefit follows any direct attack on infected areas in the bladder, and I think that cystotomy for drainage should be reserved as a last palliative resort.

In all genito-urinary infections, considering the probable involvement of tracts far from the discovered lesion, and beyond the reach of any surgical measures, the advisability of a more extended and persistent use of tuberculin is well worthy of consideration, with a view to its thorough testing, though I confess that, in the mixed infections so frequent in this region, present experience does not warrant great expectations from its employment. Still, the well-known fact of possible recovery in both the orchitic and renal regions, without local extirpation, emphasises the great importance of utilizing fully all methods proved to be anti-tubercular, and their continuance, even in the more advanced lesions, where palliative operations only are indicated.

Despite the fact that well-marked infections of the peritoneum may subside under general treatment, and the undoubted risk of parietal infection, after section, the good results obtained by direct surgical operation in certain groups of cases are unquestionable. As was first demonstrated by Sir Spencer Wells, we still find recovery following the free evacuation of ascitic fluid by direct incision, and that the ablation of such organs, as the tuberculous appendix or fallopian tube, has a distinctly beneficial, if not curative, effect. On the other hand, where the exudate is chiefly of a plastic nature, with matting of the

intestines by fibrous deposit, no good result follows abdominal section; in fact, harm is likely to follow. My experience of tubercular affections of the brain emphasises the rarity of a single tumour possible of removal with advantage to the patient, and the comparative frequency with which wide dissemination precludes any possibility of useful local interference in both brain and cord tumours.

Primary tuberculosis of the skin comes so seldom under notice in South Australia that two typical instances may be quoted: One in which a boy accidentally wounded his hand whilst carrying a bottle containing tubercular sputum; a typical ulcer developed a month or two after in the scar; the axillary glands were involved; but on making a clear sweep of all the infected areas, recovery ensued, and no further development took place after the lapse of three years. The other in the person of a valued friend, whose hand was pricked while conducting an autopsy on a tuberculous subject. A typical anatomical tubercle, which formed a few weeks later, was widely removed. Bacilli were found in the section, but no secondary effects have manifested themselves during the years following.

South Australian experience contradicts Stelwagon's assertion that true lupus is quite common in Australia. I rarely see it, and find that in the occasional cases treated by my colleagues, who are engaged in radiography, very encouraging results are attained by prolonged treatment with the X-rays. But this method, and that of Finsen, when obtainable, should be reserved for inoperable cases; and, in general, I am convinced no time should be wasted in the application of local caustics, or the use of tuberculin, and that, in the face or elsewhere, free wide excision by the knife gives the best results. Supplemented by skin grafting, I would strongly advocate this practice in the early stages of the disease.

In this transient reference to surgical tuberculosis, its incidence and treatment, there has been adduced little, if anything, novel or foreign to our common experience. I have not been able to indicate anything definite as regards a specific cure; nor do I anticipate that in the near future we shall attain any easy way, any direct approach by which we may expect in entire confidence the winning of a complete victory over the protean forms of disease caused by the bacillus. But the retrospect already shows, that, in some regions of the body, processes formerly little altered by treatment may now be more certainly modified, or even abolished;

that the recognition of the actual cause has led to a whole series of methods most useful in diagnosis, to a world-wide activity in the laboratory and at the bedside, already giving much promise of being ultimately rewarded by the discovery of vaccines and toxins, or other derivatives from the culture of the bacillus, which may, some of them, be of signal service by stopping the growth of the parasite in the tissues, and enabling the organism to eliminate its toxins.

There is now, as never before in the history of medicine, a lively expectation that the researches of the bacteriologist will furnish us with efficient agents in the treatment of both pure and mixed infections, and, encouraged in many directions by what has already been achieved in various regions of surgical work, we have some reason to expect even better results, not only in them, but in other parts and other conditions, which are now not infrequently beyond amelioration, for we recognise that

"Man knows partly but conceives beside,
Creeps ever on from fancies to the fact,
And in this striving, this converting air
Into a solid he may grasp and use,
Finds progress . . ."

In the present Session of Congress we have already had the opportunity of hearing this branch of the subject treated by men whose work, largely inspired by Wright, is being closely watched throughout Australia, men to whom we look for very material aid in the future treatment of all forms of tuberculosis. And there is good indication of that aid becoming of increasing value as their knowledge of the intricate biochemical relations between the bacillus and the human body, becomes more and more clear.

If I have been able to emphasise the wide prevalence of tuberculous infections in a country which, so far as we know, was once immune, and to aid at all in stimulating endeavour directed against their extended continuance, I shall not perhaps have occupied your time and attention in vain, and, in any case, I thank you for your courteous and patient hearing.

German Scientific Exploration in the Pacific.—It is reported that Dr. Kraemer, a German scientist who has written a large volume on medical subjects, has been sent by the German Emperor to investigate the Pacific. He arrived in Adelaide at the end of last month, and left Sydney for New Ireland (which the Germans call New Mecklenburg) early in this month. Dr. Kraemer has been commissioned by the Kaiser to study the races, the diseases, and the zoology of the Pacific for about the space of a year. He will travel on the Imperial surveying ship Planet.

THE PROSPECTS OF THE BRITISH MEDICAL PROFESSION AND SUGGESTIONS FOR IMPROVEMENTS.

By James Booth-Clarkson, L.R.C.P., L.R.C.S. (Edin.),
D.P.H. (Camb.), Ayr, Queensland.

SOME time ago Dr. Reginald Harrison, late President of the Royal College of Surgeons, England, wrote me a letter saying that he was no longer taking an interest in medical politics, as so little had been achieved, and medical men were so indifferent to protecting their own interests. This was rather discouraging, as being from a man who has been a noted worker in medical interests. It is not, however, difficult to understand this attitude, as for many years past the British medical profession, instead of gaining ground, seems to be losing in comparison with the profession in other countries, both in regard to social position, pecuniary advantages, and, some would say, even in regard to scientific position.

Not so very long ago, there was not a court in Europe which had not its British physician, and in some cases a British physician was the chief physician in two or three courts. It would be hard to find one now. A still shorter time ago, British physicians and surgeons were found as professors of various subjects in the Continental Universities. Is there one now?

A still shorter time ago British practitioners were found and appreciated all over the world, especially in the various health resorts which they themselves had discovered and made. At the present moment there are very few at any of these places.

The British medical profession is at present in the position of the British Empire itself, and if it does not bestir itself, will, like the latter, lose what position and privileges it has left. We all know the position of the average practitioner at home, but at the same time it was somewhat of a shock to me when in Cambridge three years ago to read a letter from an M.D. of Cambridge, meant for the information of Cambridge graduates, to the effect that a Cambridge graduate, on the average, after taking his degree, might expect to make about £400 a year. This seems a very small return for work like that demanded of the medical profession, when it is considered that, before qualifying, the said graduate probably spent from £1500 to £2000 on his education, and more especially as this education, unlike other professions and trades, could not be considered as final; but more

time and money would have to be spent at several subsequent periods on post-graduate studies. This surely shows that the medical profession as it is can scarcely content those who adopt it as a livelihood, and more particularly when it is remembered that the increasing power of the several Labour parties, with their tendency to "sweat" the medical profession in particular, has to be taken into account.

It is time that we began to look after our own good instead of the good of the public, and that we should cease to think that the so-called "nobility" of the medical profession requires us to work for nothing and be spoofed out of fees.

The list of applicants for admission to the Royal Medical Benevolent College, Epsom, by indigent members of the profession and their families, show that charity should begin at home.

With the view to improving the profession the following subjects should be considered:—

Overcrowding.—In a letter to the *B.M.J.*, which was very favourably reviewed in the *B.M.J.*, Dec. 22nd, 1906, page 1832, I suggested that "the fact that overcrowding exists should be made known among laymen, and comments upon it not confined to professional journals, where, if seen by young men at all, it is too late for them to change their path, as such journals are only read after studies have commenced."

Re this letter, Sir Victor Horsley wrote me that there was another method of preventing overcrowding, viz., reducing the number of corporations granting diplomas.

Politics.—The British medical profession should be more represented in politics, both national, municipal, and local. Very few countries have as few medical representatives in various branches of politics as Great Britain. In France, Germany, Spain, Portugal, the United States and Spanish America, the medical profession is well represented in the legislatures. And yet in the United States of America, where the profession is much better represented than in England, both Presidents Roosevelt and Cleveland told the profession, in addresses at the Academy of Medicine, New York, that the medical profession did not pay sufficient attention to politics; they were therefore bad citizens, and that if they did not consider politics, politics would not consider them.

Sir Walter Foster told a deputation of English medical men that the medical profession was a disorganised mob, and repre-

sented nothing and nobody. No wonder that in legislatures medical interests so often go to the wall when there is no medical man present to support the benefits of any given measure to either the profession or the public. Politics must therefore receive greater general attention.

Defence.--There have been one or two defence societies in England; they have not received general support; consequently they have benefited only individuals, but not the profession as a whole. In the United States of America, when defence was taken up in several States, it was taken up by the various State medical societies, and not by private associations. The New York Medical Society reports that since medical defence became part of its duties, many fewer actions have been taken against the profession, and fees have much more easily been obtained.

When in Belgium a short time ago a Belgian doctor told me that they nearly always recovered their fees, as they had such a very good general defence association. Therefore medical defence should not be forgotten. It should not be undertaken by small private associations, but by the General Medical Association, which the public would not only respect, *but what is of more importance, fear.* They would look on the medical profession with much more respect if they felt that the great medical associations were not only for the advance of science, which benefits the public, but also for the protection and the advancements of the interests of the profession itself.

All over the world, human nature being what it is, the weak get bullied, and at present the profession, especially the British part, is *very weak*, so weak, in fact, that it would almost seem that its members, while having shown undoubted bravery in other fields of action (note the numbers of V.C.'s gained by the R.A.M.C.), have been guilty of absolute cowardice in the protection of their own interests, so that the *non nobis solum* seems to have been carried to the *reductio ad absurdum*!

Fees.--These seem to have been peculiarly neglected by the British medical profession, though at present, fortunately, there seems to be some discontent in Great Britain. Manchester and one or two other places have made a reasonable scale of fees. In various American States scales of fees have been made by the different State Medical Societies, and men not adhering to them are considered

ineligible for election to or retention of membership, and respectable doctors will not consult with them.

Quite recently the medical practitioners in Germany and Austria have raised their fees considerably in view of the increased cost of living, and the German fees in particular, considering the difference of cost of living in the two countries, are higher than good average fees in Great Britain.

It is desirable that a scale of fees should be made for the varying demands on the medical profession, *e.g.*, a night call should be higher than a day one, and a call out, after finishing one's morning's rounds, should be higher than if the message were received before starting.

The honour of the medical profession.--This is last, but not least. Many unjust and scurrilous attacks are made on the medical profession as a whole and individually, the latter often as a reason for escaping fees due. It is all very well to talk about treating things with silent contempt, but an unsympathetic public very often regard this method of procedure as meaning that silence means consent, which is very undesirable.

We should always remember, especially in medical matters, the story of the Scythian king, and that it is only by acting on this that we can be a truly respected and prosperous profession. Finally, we should take up very energetically the subject of reciprocity, or the "protective tariff" of the profession, or we shall be crowded out even in our own dominions. This is already beginning to be the case, for one sees frequently the appointment of holders of foreign diplomas to public appointments in Great Britain itself. The reason of this is that foreigners, having a reputable foreign degree, and most are "reputable" after one year's study in Great Britain, are admitted to examination by some of the examining bodies, and can then register and become eligible for practice as a British practitioner. But should a British practitioner wish to practice abroad he would be required to go through the whole course of five years at least. Italians are admitted to registration on production of their diplomas *without any further examination or study.* Even in the profession there is an idea that this is because Italy reciprocates with the British profession. This, however, is a great mistake. The only reciprocity is that British practitioners are allowed to practice amongst their own countrymen and other foreigners (not Italians) in Italy, and the

Italian medical profession, who thus benefit by our liberality or stupidity, nearly every session of the Italian Parliament bring forward a bill to have this very modified reciprocity withdrawn.

Certainly the general prospects do not look very enticing, and they can only be improved by more active efforts to unite the strength of the profession in every way possible.

PARANOIA WITH SOME CASES.

By Dr. Montgomery, Inspector-General of the Insane, W.A.

ONE of the great disadvantages of the branch of medicine which I follow is, that at the present time, we have no proper scientific classification of insanity. Look, for instance, at the ordinary classification—mania, melancholia, dementia, idiocy, general paralysis of the insane, epileptic insanity, etc. This is only a makeshift; it is not by any means scientific. Mania and melancholia we now look upon more as symptoms of disease than as diseases in themselves. For instance, we find in general paralysis of the insane, which is a distinct and certain disease, patients who suffer from mania or melancholia in the course of their illness. From time to time attempts have been made to add to or change the present classification, but without much general acceptance; and at times discredit has been showered upon scientific work in this direction from the fact that when a proper name and set of symptoms have been ascribed to a disease, a kind of fashion has set in, and nearly every insane person has been found to suffer from the so-called new illness.

For instance, when a few years ago dementia præcox was described by Krapelin, nearly all the cases of stupor or dementia, etc., occurring in persons under 30 years of age were diagnosed as dementia præcox, and in order to make many of them fit in with this disease, symptoms were added from time to time until the original description of the malady could hardly be recognised.

However, this state of affairs is not confined to mental medicine. I understand that some years ago there was quite a fashion in London in appendicitis.

The disease which I wish to bring before your notice to-night is one which has as definite symptoms and course as smallpox, and has been evolved from many of those cases in which fixed delusions or systematised delu-

sions were found. Peterson defines it as "a progressive psychosis, and founded on a hereditary basis, characterised by an early hypochondriacal stage, followed by a stage of systematisation of delusions of persecution, which are later transformed into systematised delusions of grandeur. Though hallucinations, especially of hearing, are often present, the cardinal symptom is an elaborate system of fixed delusions."

Bevan Lewis divides the disease into three stages:—(a) Hypochondriasis with suspicion (b) persecutory insanity, (c) transformation of personal identity—which is saying the same thing in different words.

The first point, then, is that paranoia is a disease which occurs in persons whose ancestors have been neuropathic or psychopathic. Peterson says: "Heredity is a more important etiological factor in paranoia than in any other form of insanity." Kraft Eving states that "he has never seen a case without hereditary taint." Unfortunately, our population in Western Australia is so unsettled that it is quite impossible to get, in most cases, any reliable family history of our insane patients, but, nevertheless, in this disease we find heredity in the majority of cases.

The next point is that paranoia is not a disease of sudden onset. It comes on gradually, the first stage being hypochondriasis.

I grant you that in many cases the attention of the public is often attracted to the patient suddenly; it may be on account of some outbursts of violence in a drinking bout or some homicidal act; but when the history of the patient is gone into carefully, we find that his friends or his mates say that they have thought him queer for a long time, perhaps for years; that he was moody; that he was always worrying about his health or his appearance, or that he habitually took large quantities of patent medicines, etc. He then passes into the second stage of the disease, when delusions of persecution appear.

Having studied his physical condition, and having exaggerated every little ache or pain or itching, and having been unable to account for them to his own satisfaction, he gradually comes to believe there is something at the bottom of it all, and that he is the victim of persecution and being ruined physically or mentally by some person or force of an earthly or spiritual nature. The dominant feature of this disease, then, is the occurrence of delusions of persecution. Associated with these delusions in many cases, in fact in the

majority, are hallucinations, especially hallucinations of hearing.

Mercier describes the delusions very concisely. He says:—"The precise character of the systematised delusion is very widely different in different cases, but in all there are several features in common. Through every systematised delusion there runs the thread of persecution, which connects them all together in a single well-characterised group. Every systematised delusion is a delusion of persecution. The influence, whatever it may be, is always an influence adverse to him. Secondly, the delusion is a fixed delusion; it endures without material change, often without appreciable change for years and years. Thirdly, it is associated more closely and more conspicuously than any other form of delusion with confusion of thought. Fourthly, more often than any other delusion it is associated with hallucinations."

At first the delusions are very definite. The patient feels that he is being persecuted by some one, but he cannot say by whom. He hears voices, and he says "they" talk to him, and call him names; he cannot tell you what he means by "they" or who "they" are. He feels a pain, and he immediately believes he is being tortured by electricity or the X-rays; but he cannot tell you by whom, or why he thinks it is electricity or the X-rays.

Later on, as the disease progresses, his delusions and hallucinations become the result of persecution by certain definite persons or spirits; for instance, the Premier, or the medical superintendent of the hospital for the insane where he is confined, or the local policeman. Then he becomes exceedingly dangerous, and if the disease is not recognised, and he be not placed under restraint, in all probability some innocent person will be severely injured, if not murdered by him. At first he can fight against the impulse to injure his supposed enemies, but later on he loses all control.

Attempts have been made to classify paranoia according to the form of delusion or hallucination, but, to my mind, this is superfluous. What does it matter whether a man believes that his thoughts are read, or that he is persecuted by the Freemasons. The disease is the same.

However, it is interesting to know some of the forms these delusions and hallucinations take:—(1) He may be followed about by the police, his footsteps dogged, and he is prevented from getting work, etc., etc. (2) He

may be operated on and his health shortened by "unseen influences." In this class come these people who are injured by telegraphs, telephones, electricity, Röntgen rays, telepathy, animal magnetism, hypnotism, etc. (3) Some may have their thoughts read, or their thoughts controlled, or their thoughts made known to the public. They may be made to think thoughts which are wicked, and so injure them as regards their fate after death. (4) Some may have their actions controlled, and are made to do acts against their will, which get them into trouble with the authorities. (5) Some may be persecuted on account of religion by the Roman Catholic or Protestant churches, whilst others are the victims of secret societies, amongst which the Freemasons are prominent.

I have one case who unfortunately said if I brought him before you to-night he would not speak. In his case, not only is he persecuted by means of taking his manhood from him, but he is also persecuted through an imaginary female whom he worships, and who is tortured by his enemies. These cases are not common.

In this stage, as I said before, hallucinations are very common. The most common form of hallucination is hallucination of hearing, which they speak of as "the voices." Hallucinations of feeling are, in my opinion, the next most common, as in cases of electric shocks, although some authorities place hallucinations of sight as more common. Gustatory hallucinations are the least common form.

Connolly Norman, in a paper called "Modern Witchcraft," a study of a phase of paranoia, gave some curious instances of the similarity of the delusions of the paranoic with the ancient superstitions concerning the powers of witches. He says:—"We find re-appearing amongst the paranoics of to-day, notions having the closest kinship with some of the old witchcraft superstitions, although we may be tolerably sure that the victims of to-day's delusions are quite unfamiliar with the history of the ancient belief. One of the most frequent means whereby the witches of old were considered to influence their victims injuriously was to acquire possession of something pertaining to the latter, and by exercising malign energy upon the object which was in the hand of the witch to transfer evil to the bewitched. A picture or a portrait image as more nearly representing the individual had special efficacy as compared with mere articles

of property, but great value belonged to anything that could be considered as part of the victim himself. His handwriting was important, especially his signature, even when this was not appended to some contracts with the evil one, obtained surreptitiously or otherwise."

He quotes a case of a female paranoic who suffered in this way. "She said that she got a command once not to speak, and that she did not speak for six weeks. Asked whose command it was, she says, 'It might have been God's or Dr. Norman's voice'—then adds—'It must have been Dr. Norman's voice.' Questioned—'But if it was Dr. Norman's voice, why did you obey it?' Answer—'I had to do so when he had me under his influence.' Question—'How did he get such influence over you?' Answer—'He asked somebody to get my handwriting. I wrote a letter to a girl who is a friend of mine. They got it and gave it to him, and once he had my handwriting and my signature he could influence me by that as he wished, and it was from this it all came. All that followed I mean. I was in his power. He could do what he liked when he had my signature to work on.'"

Another point in this disease which appears in connection with their delusions and hallucinations is their confusion of ideas, especially early in the disease. Their delusions and hallucinations at first are not distinct. They speak of voices, but they cannot tell you what the voices said, or who the people are who speak to them. They tell you that they are acted upon by the X-rays, but when you cross-question them they cannot give you any definite reason for this belief. They feel some persecution is going on, and boldly say it is electricity, but on pushing the matter further they become entangled in their own surmises, and will probably talk nonsense.

Later on, as I said before, the delusions become more distinct and the patient more logical in his beliefs, but as the disease progresses further they may again become confused, and even quite incoherent. Many of them coin words and expressions. I have a female patient who assures me that she does not suffer from delusions, "but that it is all a conspiracy, and what she suffers from are 'denusions' which are put upon her by her enemies," but she cannot give you any idea what a "denusion" is. Another man told me he was a "poofter," but I never was able to get a definition of this word from him.

Again, another patient, whom I have mentioned before as being persecuted through his spiritual affinity, says that his enemies have made him a "dismantled man," and talks all sorts of words known only to himself. He is also a very good example of confusion of ideas.

The third stage of the disease is when the delusions assume a grandiose form, or, as Bevan Lewis says, "a transformation of personal identity occurs." Time having elapsed, the patient commences to think that there must be some reason for the persecution, and as he cannot find any in his previous conduct and cannot think that he deserves it in any way, he is forced to the belief that there is some other reason. It is then the thought occurs to him that it must be that he is a person of great importance. He is perhaps a great politician, and secret societies are afraid of him, and so try and get rid of him; or perhaps he is enormously wealthy, and his enemies are after his wealth; or he may be extremely handsome, and others are jealous of him and so try to destroy him. From this stage, if he lives long enough, he gradually passes into dementia, and so ends.

Etiology.—As I have pointed out before, the authorities are practically agreed that heredity is at the root of the disease. It may apparently be the result of an acute attack of insanity caused by alcohol, overwork, etc., but careful investigation will nearly always disclose the fact that this acute attack is an exacerbation of a disease which has existed in the hypochondriacal stage for some time unnoticed. Stigmata of degeneration are fairly common. Peterson says that it is more common in females than in males, but in Western Australia the opposite holds good.

Differential Diagnosis.—The forms of insanity which might be confounded with paranoia are obsession, melancholia, and chronic mania with fixed delusions.

1. *Obsession.*—Paranoia differs from obsession in that although the victim of the latter disease suffers from an overwhelming idea or impulse to do something which he knows is foolish, it has nothing whatever to do with persecution, and is apparently quite illogical and uncalled for, and the patient can give you no reason for the impulse. As an example of obsession in people who are quite sane, is the inclination to step over the joints in the pavement, or to touch certain bricks in a wall. In paranoia, on the contrary, although the patient may be obsessed and forced to do some act against his will, he can

give a very logical reason for doing so, and these acts are always connected with the persecution. For instance, he believes that a certain man is acting on him with an electrical battery, and so injuring him physically and mentally, and the impulse comes upon him to purchase a gun and shoot this man, and does so; although the impulse is based on a false belief, it is quite logical.

2. *Melancholia*.—The distinct line between melancholia and paranoia is that, although many melancholics believe they are persecuted and are extremely miserable on account of the persecution, they do not resent it, but believe that they deserve it, and even sometimes glory in it as a just judgment on them for their wickedness. When about to be fed, he may believe that he is about to be poisoned, and in the struggle to escape he may injure those attending on him, but he will never quietly plot to destroy those who he believes are his persecutors. The melancholic may seek an end to his sufferings in suicide, but practically never in homicide, while the paranoid is very homicidal, and practically never suicidal. On the other hand, the paranoid is never in the wrong. All his persecution is wholly undeserved. He is the innocent victim, and his tormentors are dangerous enemies to be got rid of. His acts of violence are not those of a trapped rat who bites like the melancholic, who is violent when he is fed, or dressed, or taken from one room to another, believing that he is going to execution, but are carefully-thought-out plans for the defeat of his enemies, and for which he may wait for months until a favourable opportunity presents itself.

Again, the difference between the paranoid and the person suffering from the fixed delusion and chronic mania is very marked. In the latter disease the delusion is rarely of a persecutory type, and it does not dominate the patient's actions and thoughts in the way those of the paranoid are dominated. The man with the fixed delusions of mania may believe all sorts of foolish things, but he does not worry much about them, and you might converse with him for a very considerable time and be quite ignorant of them. He goes about his work with his fellow patients like an ordinary individual, and it is only when you get him on his pet delusion that his insanity is apparent. He may believe he is the king of the Cannibal Islands, but that does not prevent him from feeding the pigs in a very efficient manner. He may have no inside, but this does not prevent him from making a

most excellent dinner. He writes long letters to his friends and relations, and no word or hint of his delusions may appear; and, in fact, his delusion is a side issue.

But the paranoid, on the other hand, is totally dominated by his delusion. He cannot converse with you for any length of time without bringing up the subject of his persecution. His letters are a history of his imaginary life of misery. Every trivial act of his fellows is construed into part of a widespread conspiracy, and so he can rarely work in company with these people for very long without trouble occurring. Should two friends greet each other, they are making signs with reference to him. Nothing is too trivial to escape his notice, and everything is fitted in to meet his special form of persecution.

I have a patient who is a very good example of how trivial acts can be converted into insults and persecution. He was a schoolmaster in the State schools, and on account of his developing mental malady, he was constantly changing from school to school because he could not get on well with the people whom he came into contact with. His last position was in a country school, and as there was no residence for the schoolmaster, he lived with the parents of two of his pupils. His suspicions of the people of the district gradually increased, and the last straw was when one evening his landlord's children came to the tea table with dirty hands. The father was annoyed and told them to go out and wash their hands. This was looked upon by the patient as a fearful insult and degradation to him, and he immediately left his school and resigned his position in the department shortly afterwards. Very soon his malady was recognised, and he was admitted as insane. He often tells me of his troubles, and solemnly brings up the fact that a father reprimanded his children for having unclean hands at the tea table as the climax of a long series of conspiracy and persecution. The fact, that the children coming in a dirty condition to the tea table at which the schoolmaster was sitting, was an insult apparently was never thought of by him.

Physical Condition.—Stigma of degeneration may be present, but no other abnormal physical condition is usually found. Of course by chance the patient may be found to suffer from some diseased condition of body, but in that case it has no application to the mental condition. On the other hand, far less than the sufferers of any other mental disease do

paranoics suffer physically. For instance, as it is not an acute disease, we do not find the derangement of the alimentary tract that is found in acute alcoholism and acute mania, etc. There is no rise of temperature as there is in these acute cases. The foul breath, the furred and dirty tongue, and the gastric disorder of acute mania is not present nor is the severe constipation and other alimentary symptoms of the acutely melancholic patient. Unlike general paralysis of the insane with its characteristic eye symptoms, with its tremor and altered speech, and its fragile bones, no nervous symptoms are found of necessity in paranoia. Taken in general, he is physically a healthy man.

And when we come to the post-mortem, the same holds good. No characteristic changes have been found in the brain; in fact, Peterson goes so far as to say that the disease is purely functional, and he calls it a disorder and not a disease. This may be so, but I doubt it. Sooner or later, I think a physical cause must be found for a disease which is so consistent in its symptoms, and so characteristic in the course it runs. In some cases a symmetrical arrangement of the cerebral convolutions are found, and this, Peterson says belongs to the category of stigma of degeneration. The course of the disease I have outlined already.

The comparatively harmless stage of hypochondriasis gives place to the extremely dangerous delusional stage with its homicidal tendencies. This is followed by the less dangerous stage of grandiose delusions if the patient lives. Dementia gradually sets in and the delusions become dulled. In this stage the patient is comparatively harmless, and if circumstances permit, might be liberated to the care of friends. The disease is hopeless, recovery so far is unknown. No treatment for cure is of any avail, the only treatment being towards calming the patient and reducing excitement and sleeplessness, if present.

All these cases are dangerous, in fact, on account of their craft and powers of calculation they are the most dangerous of all insane persons. In every case they should be placed in an institution for the care of the insane. If this is not done, sooner or later his delusions will get the better of him, and he will commit some act of homicide which will place him in gaol, if not on the gallows, as many criminal paranoics are not recognised.

▶ Cases of homicide by paranoics who are not suspected or recognised as such, are far from common, and at times result in the death of

some man of world-wide fame. A President of the United States fell at the hands of one. Whiteley, the great London merchant was murdered by another, and in my mind there is no doubt that Harry Thaw is at present suffering from this disease.

In concluding, I must apologise for choosing for my subject a disease which is incurable, and on the treatment of which I am unable to throw any light. My reason, however, is the absolute necessity of recognising these cases in time, and of having them placed under restraint.

(Read before the West Australian Branch of the British Medical Association.)

RECORDS FROM GENERAL PRACTICE.—ACUTE PRIMARY PNEUMONIA.

By J. A. Cameron, M.B., B.C., Ipswich, Queensland.

THE mental picture one acquires of a disease, as a whole, during one's time in the hospital wards as a student, frequently undergoes considerable modification when one has come into perhaps closer grip with it after a few years of private practice. In some instances this is due to lack of trained powers of perception and observation during earlier acquaintance with disease processes; in others it is because the whole process from beginning to end is not followed up, or some of its features thrust on one as it often is in private work.

I venture to think that acute pneumonia comes under this category. In the wards one saw case after case of acute lobar pneumonia in adults, each running a short definite course, severe, prostrating, often fatal, with well marked physical signs; less often, cases of lobular pneumonia, usually in children, of a different type and running a different course, and during the clinical instruction the marked differences were emphasised. In private practice, however, one soon found that the cases would not always fall apart so readily, especially when children were the subjects. In them case after case refuses to act clinically, as lobular pneumonia should. Of course many typical cases occur, especially after diseases such as whooping cough and measles, but many others, and far more than one expects at first, run a course clinically very closely approximating to acute lobar pneumonia in adults. This is brought out more strongly in the later teaching and text-books than formerly. For instance, Dr. Samuel West says, "The anatomical classification of broncho-pneumonia must therefore give way

to the clinical classification, and we are forced to the conclusion that the primary form of broncho-pneumonia is really the same disease as the massive pneumonia of the adult.

"Bacteriological observations, so far as they go at present, confirm this conclusion, and show that the primary form is associated with the pneumococcus, the secondary with other organisms. Pneumococcal inflammation of the lung thus appears to occur with almost equal frequency in the child and in the adult. In each it may produce either a single massive consolidation or several disseminated patches; but while in the adult the massive form is common and the patches rare, in the child the contrary is the rule; it is the patchy form that is usual, and the massive form rare."

The same view is expressed by Holt in his "Diseases of Infancy and Childhood." I do not think I am misrepresenting the teaching of my student days in saying that the frequency in children of this pneumococcal broncho-pneumonia, if I may so call it, and its close resemblance clinically to adult lobar pneumonia was not strongly brought out.

I have kept a list of cases which I have believed were acute lobar pneumonias as apart from secondary broncho-pneumonias. It is little more than a list, still the figures help to prove what I have been saying, as they consist only of cases seen in private practice, quite exclusive of hospital ones. During the last 11½ years there have been 217 cases, all of them, judged clinically, being cases of acute primary pneumococcal pneumonia. Of these, 65 were over the age of 20, and 120 under that age; in 32 the age has not been noted. There were 14 deaths, eight over the age of ten, and six under that age. Four of these with earlier and better nursing would perhaps have recovered. Nineteen of the whole series, whose ages were noted were under two years of age, two of these died; two were under 12 months, one of them died. The youngest patient of all was 3½ months old, she died; the youngest to recover was 11 months old; the oldest to recover was 79 years old. There were 15 empyæmas, seven over the age of 10, and eight under; two of the latter died.

Holt classifies acute pneumonia in children as follows:—(1) Broncho-pneumonia, (a) primary, (b) secondary; (2) lobar, and (3) pleuro pneumonia, and calls attention to the similarity of clinical features in 1a, 2 and 3. While all the above 217 cases come under one of these three heads as distinct from secondary broncho-pneumonia, I must con-

fess that I could not separate many of them into a place under one or other of the above divisions.

I have no intention of entering fully into the subject of diagnosis and treatment of pneumonia, but from these cases as a guide to bring forward a few points to indicate some lines for discussion. In the first place the mortality is lower than usual in hospital work, which I attribute to two main causes. The first is the large number of children included. It is not a very fatal disease in children. Holt gives the mortality as 4 per cent. in all cases. The second is that the cases are usually seen very early in the attack, are got to bed early, and then disturbed as little as possible. This is of especial importance in adults. Dr. Arthur Latham, of St. George's Hospital, points out that in adults fluid or pus is seldom found or to be feared during the first week of illness, and that elaborate percussion and mapping out areas of dulness is unnecessary, and that sitting up or moving does harm, and is therefore inadmissible. He shows that movement increases respiratory effort, and so leads to auto-inoculation of toxin, and points out that heavy percussion of chest of a patient with pulmonary tuberculosis is followed by absorption of toxin, as indicated by the opsonic curve, also in a case of tubercular laryngitis if the patient reads aloud for an hour the movement causes absorption of toxin and the effect on the opsonic curve is the same as that produced by injection of tuberculin; similarly, he says, the same effect on the opsonic curve is produced if a joint affected by gonococci is moved. The same principle applies in pneumonia, and the deduction is obvious that, the diagnosis once having been established, the less a pneumonia patient is moved the better his chance of recovery. Statistics recently prepared for the Royal Society of Medicine show that the mortality in all the large London hospitals is about the same, viz., 20 per cent., although very different methods of treatment are used in various hospitals. In children, as I have said, it is not a very fatal disease. After the age of three nearly all cases of primary pneumonia are lobar, and nearly all recover. The diagnosis is usually easy in them. The highly flushed face, with dry slightly parted lips and bright anxious eyes, the rapid respirations with characteristic expiratory moan and dilated working nostrils, and the short frequent little cough generally lead one to correctly suspect what is wrong at first sight. Two sets of symptoms, how-

ever, often give rise to doubt, especially so because the physical signs in the lungs are sometimes hard to detect or may not be present for some days. Pleurisy is very frequent in children, and the pain may be persistently referred to the abdomen, and with absence of physical signs in the chest may give rise to suspicion of a grave abdominal lesion, as tenderness and rigidity may be present also. I must confess to having been in doubt for a time on more than one occasion even lately, but I was surprised to learn that more skilled diagnosticians have erred even further, as evidenced by a statement by Murphy, of Chicago, in a journal of June, 1908. He says, "Pneumonia (especially in children) has caused many needless laparotomies." In very young children an attack is sometimes ushered in by sudden abdominal pain, vomiting and purging, and for a day or two pneumonia may never be suspected. The second set of symptoms to cause difficulty in diagnosis is that connected with the nervous system. Cerebral symptoms are often marked and misleading; they are commoner under five years of age. Convulsions are not frequent, even at the onset of the disease, and at that period do not necessarily indicate that the case is to be a severe one, nor is there any constant relation between the portion of the lung affected and the cerebral symptoms. Delirium, usually not of an active kind, is frequent, and with other cerebral symptoms, such as head retraction and a cry may suggest and closely imitate meningitis. If the nervous symptoms are present from the onset there is probably not meningitis. Acute otitis in the course of pneumonia must not be forgotten. A case of acute pneumonia in a child with the physical signs not marked and complicated by an acute inflammation of the middle ear can furnish a very difficult diagnostic problem.

A few other points may be referred to in children. One has been incidentally mentioned—late appearance of physical signs. It is undoubted that even with care in examination it may be the fifth or sixth day before physical signs are detected. In such a case one must not omit to examine high up in the axilla, or close under the clavicle. As far as I know such long delay in the appearance of physical signs is uncommon in adults. Again, undoubtedly abortive cases occur in children in which onset, symptoms, and physical signs are typical, yet a crisis occurs on the third or even the second day, a sign worth watching

is the respiratory rate in children, because of its significance in estimating the progress of the disease. Generally speaking, though of course with exceptions, one may say that during the course of the disease an increase in respiratory rate, together with an increased rise in temperature, means spread of the disease, and a rise in respiratory rate without a rise of temperature indicates exhaustion and cardiac failure, and is grave, whereas a secondary rise of temperature without respiratory rate is probably not serious. Again, while some pleurisy occurs practically always in children so that it may be regarded as part of the disease and not a complication, pericarditis is seldom seen, certainly less often than in adults. Another point about children is their rapid recovery. "Delayed resolution" is not common; chronic pneumonia and tuberculosis are rare sequelæ. Prolongation of fever after the usual time for the crisis is generally due to empyæma, less often to otitis, and sometimes to spread of the inflammatory process from one part of the lung to another. An acute lobar pneumonia in infants may start in one lobe and spread by continuity from one lobe to another on the same side, subsiding in one part and increasing or spreading in another, so keeping up the temperature longer than usual, and delaying the crisis which comes all the same. However, when the elevation of the temperature persists much beyond the usual time it is difficult and perhaps unwise to diagnose solid lung rather than fluid in the chest, yet such cases can be recognised when carefully watched from day to day.

This brings me to another consideration, the question of pus in the chest, which is, of course, pre-eminently the most important cause of prolongation of the illness. There were 15 empyæmas in the 217 cases requiring operation. Such a small number is insufficient as the basis of any decided opinions; still one forms impressions, and these will serve to start discussion. The diagnosis in adults is usually not attended with much difficulty; in children it may be easy or extremely difficult. In them, as a rule, it is seldom a question of a serous fluid gradually becoming purulent; the pus is from the first. Of course I do not mean that serous effusions do not occur. In some cases a day or so after the crisis the child, which has seemed much improved, begins to get worse again; the temperature rises, and signs of fluid develop in others, and these are usually the ones

causing more difficulty in diagnosis, the child is actually ill from the first, and no crisis occurs at the usual time, physical signs persist, the pus appears to be there almost from the first. These are often the cases described by Holt as pleuro-pneumonia. He says that in most cases the pleura over the whole lung is involved, although the pneumonia may only affect part of a lobe; a very thick exudation forms, which finally breaks down, at first at various points into pus, but he thinks sometimes the exudation may become partly absorbed and partly formed into thickened fibrous pleura. I have thought that I have followed out such a course in a few of my cases. The physical signs are apt to be very puzzling, owing to the thick pleura, and if an exploratory needle is used early, pus may not be present. The children are usually acutely ill and the convalescence is prolonged.

Ordinarily in children, apart from physical signs which are not always as clear as in adults one suspects empyæma if the fever is prolonged beyond the ordinary period, if there is an undue amount of delirium, if there is marked oscillation of the temperature instead of keeping fairly uniformly high, if there is considerable tenderness over the affected side, and if there is fulness of the intercostal spaces, although one usually hopes to discover it before this sign becomes noticeable. It is better to use an exploring needle early than to remain long in doubt; a hypodermic syringe needle is much too small. If pus is not withdrawn one is not satisfied as to its absence. A larger needle should be used, and everything should be ready to go straight on with the operation. Two of the children's cases were operated on by others in my absence; one of these, a delicate child, died next day. The rest, except one, did well. Six children and five adults had a simple incision made and no piece of rib was excised, which leads me to suggest that efficient drainage can generally be secured in this class of cases without rib excision. The principles I adopt for my own guidance are, briefly, to operate as soon as possible after the period of most acute inflammation has passed, to guard carefully against infection at the operation and at subsequent dressings; iodoform gauze makes a most satisfactory dressing. The one case of my own that died was, I believe, from further infection as the wound became dry and the chest-wall swollen. To get the finger in through the hole into the cavity and sweep it round; to loosen and remove as

many of the thick pieces of lymph as possible; to use a short, thick tube about two inches long is generally enough, and it is surprising how large a tube can be inserted between the ribs. Of course a piece of rib should be removed if the space is too narrow for proper drainage, but I think that is not often. In children the tube can frequently be dispensed with in eight or ten days, the earlier the better. Necrosis of the rib rarely follows this plan, although I must confess to having seen a child with rib necrosis when a simple incision had been used, presumably from pressure of the tube, but I was not acquainted with the details of the treatment. Irrigation and syringing have been avoided, and fortunately there have been no complications, such as profuse hæmorrhage, or sudden collapse, or death after opening the chest, nor were there any cases of double empyæma. A general anæsthetic was employed for all the cases with one exception—a man much too ill to risk it. In children at all events a general anæsthetic, chloroform for choice, is always desirable.

It is not my intention to go into other points in the treatment of pneumonia, except to add that whilst children almost always convalesce very quickly if no complications supervene, it is a safe rule not to let adults out of bed soon, nor to take for granted that examination of the chest is not required after the temperature reaches the normal.

I would suggest one other point only for discussion to-night, that is the question of infectivity. Holt says he has never seen an epidemic of lobar pneumonia, and in support of this, and of the non-infectiousness of the disease, is the small resistance of the pneumococcus to air and light; but certainly at times one comes across instances which seem to point to direct infection.

In conclusion, I trust that my opening statement has been substantiated by these remarks, and that you have been furnished with sufficient material upon which to base your discussion of this interesting and common disease.

(Read before the Queensland Branch of the British Medical Association.)

Dr. James Boyd, one of the few surviving old Bendigonians, has resigned his seat on the committee of the benevolent asylum. The resignation was received with regret, and it was decided to place a minute in the records expressing appreciation of the valuable services he had rendered during his lengthy connection with the institution, dating from its inception 50 years ago.

CASE OF PYELITIS AND TOXÆMIA OF PREGNANCY WITH JAUNDICE.

T. G. Wilson M.D. (Syd.), F.R.C.S. (Ed.), Hon. Gynaecologist Adelaide Hospital.

THIS patient, a primipara, aged 24, was admitted to the Queen's Home on 10/11/07. The history given was that she had been well up till ten days before admission, when she had an attack of influenza, and shortly after began to have attacks of pain in the right side with vomiting. She also had frequency of urination, and pain of a bearing down character in the lower part of the abdomen, for which a pessary had been inserted without relief. Her friends said she had been getting yellow in colour the last few days. I saw her first several hours after admission, when she looked seriously ill and was markedly jaundiced. The temperature was 102.6°, and pulse 126. She had been vomiting very frequently during the night, and had retained no nourishment for 48 hours. The vomit was dark in colour, sometimes bile-stained, and offensive. Her mental condition was dull and lethargic, but she answered questions rationally. The tongue was dry and heavily coated. The respirations were 30, and her heart and chest sounds were normal. No hypertrophy of the thyroid gland, such as is usual in pregnancy, could be made out. The pregnant uterus could be felt extending to just below the ensiform cartilage, and by abdominal palpation the lie of the fœtus was L.O.A.

The period of amenorrhœa corresponded to about eight months' gestation. There was marked tenderness in the right lumbar region, and here the right kidney could be felt, and seemed considerably enlarged, and was markedly tender on palpation. At this stage the liver dulness was normal, but next day the dulness was distinctly decreased upwards. No foetal heart sounds were heard. Per catheter about 3oz. of offensive bile-stained urine was withdrawn, slightly acid in reaction, and almost solid on boiling. Microscopically it was found to be full of pus-cells, and many bile-stained casts, but no leucin nor tyrosin crystals were detected. The urea percentage the following day was .9 per cent. Only six ounces of urine were secreted the first 24 hours after admission. Vaginal examination showed that there was commencing dilatation of the os uteri, sufficient to allow of the insertion of a small-sized Champetrier de Ribe's bag. During the day there was very little change, except that the jaundice seemed to get more

of a greenish tinge, and a few petechiæ developed on the body and legs. The vomiting was almost incessant, with intermittent attacks of abdominal pain. The bowels were opened under the patient, the stools being dark in colour and very offensive. The temperature ranged about 101°. Labour pains did not become marked till the following day, and the bag was expelled in the course of the next eight hours, when the os was found to be rather bigger than half a crown. Only 10 ounces of urine had been passed since admission.

Under chloroform the cervix was dilated with a Frommer's dilator, and a stillborn infant of about 8 months gestation delivered with forceps. The body of the fœtus was slightly jaundiced. There was some laceration of the cervix which was stitched at the time.

After delivery the vomiting became less, but did not cease for 48 hours, and during this time she was very restless and semi-delirious, and slept very little. The jaundice remained very marked for several days, and then began to clear up. During the next 48 hours 38 ounces of urine were passed; and the right kidney rapidly decreased in size, and at the end of a week was no longer tender on palpation. A considerable quantity of pus was present in the urine for the first week after delivery, and then gradually cleared up, but albumen was present even when no pus cells were found microscopically. The temperature, after delivery, was twice over 100°, and involution of the uterus and the lochia were satisfactory. When she left the home at the end of 17 days the urine was free from albumen, and the jaundice had quite cleared up. The liver dulness was also normal.

As regards medical treatment, apart from expediting labor, the patient was given hot packs, and kept on the saline drip by the rectum. In this saline were dissolved thyroid tablets. Nothing given by the mouth was retained.

The reason I have recorded this case is because of the co-existence of pyelitis of pregnancy with the symptoms of toxæmia, which in this case assumed the type described as *icterus gravidarum*. I regarded and treated the case from the first as one of toxæmia of pregnancy, and from the history of the case thought the sequence of events had been as follows:—There had been some damming back of urine in the right kidney pelvis, which had become infected probably at the time she had influenza (I regret that no

bacteriological examination of the urine was made, but such infections are generally due to B.C.C.) The right kidney being partly disabled, the left kidney was not equal to the extra work thrown on it, and allowed of the accumulation of toxins in the blood, and these in turn caused secondary degenerative changes in the liver resulting in jaundice. I considered this jaundice merely a part of the condition of toxæmia, rather than an accidental catarrhal jaundice, and, as such, to be looked on as being due to changes similar to those that occur in the liver in cases of acute yellow atrophy.

It is only comparatively recently that the condition of toxæmia of pregnancy has received much attention, and most of the text-books on midwifery scarcely mention the condition apart from eclampsia. What the exact toxin really is, has not apparently been decided so far, except that there seems to be a consensus of opinion that the toxin is probably alkaloidal in nature and a result of deficiency in metabolic processes in the liver. There are two well-defined types—first, the toxic condition which results in the development of the typical eclamptic convulsions; and, secondly, the toxæmia where convulsions do not occur. Under this latter condition have been included conditions widely differing in symptoms, having at the one extreme the milder degrees of hyperemesis gravidarum, and, at the other, the condition known as acute yellow atrophy of pregnancy. In both types the toxins seem to affect chiefly the nervous system. It is generally held nowadays that the chief focal lesion is in the liver. This is supported by the fact that similar lesions are found post-mortem in the liver in cases of eclampsia and in cases of acute yellow atrophy.

These lesions consist essentially in a condition of fatty degeneration and necrosis of the liver cells, and closely resemble the changes found in the liver in cases of phosphorus poisoning. This finding helps to explain those rather rare cases of eclampsia which are complicated by jaundice, which is probably produced by the mechanical blocking up of the smaller bile-ducts by degenerated epithelial cells.

Many of the older text-books refer to the condition of acute yellow atrophy of pregnancy as invariably fatal, but cases are on record of recovery with the typical clinical features of this disease. Two such cases in pregnant women have been recorded by Drs.

Scot Skirving and Creed, of Sydney. In both these cases delivery took place spontaneously on the fifth day of the disease. One case had leucin and tyrosin crystals in the urine; the other had not.

The condition of toxæmia of pregnancy is generally classified as a functional disorder of the liver, which only secondarily leads to organic changes. If the supply of toxic substances can be controlled, or the toxin eliminated, there is nothing in the lesions at first which is incompatible with life. The amount of urea in the urine in cases of toxæmia is diminished, and this fact may be of diagnostic assistance in such cases. For a long time this fact of the decrease of urea was looked on as indicating that urea was the toxic substance, but it is now generally recognised that the amount of urea in the urine is merely an index of proteid metabolism in the liver. If this metabolism be faulty, toxic substances are allowed to circulate in the blood, and should the kidneys not be able to eliminate these, the condition of toxæmia arises. The presence of leucin and tyrosin crystals in the urine in cases of icterus gravidarum is not invariable, and they are more likely to be found in these cases where degenerative changes in the liver are well advanced.

(Read before the South Australian Branch of the British Medical Association.)

AN UNUSUAL MALFORMATION OF THE PELVIC ORGANS IN THE FEMALE.

By H. G. Taylor Young, M.D., C.M., Assistant Hon. Gynaecological Surgeon Royal Prince Alfred Hospital, Sydney.

THE patient was first seen by me, in consultation with the late Dr. Hedley, 17 years ago. She was brought by her mother because she had never menstruated.

On examination, I found only a rudimentary vagina, which extended for a distance of $1\frac{1}{4}$ inch upwards and to the left. It was so small that it was only possible to pass a No. 10 catheter. The mother was advised to warn the patient against marriage, but the advice was neglected. A few months ago she came to me, and was now married. On examination I found her externally in every way a well-developed woman. The vagina, a little over $1\frac{1}{4}$ inch long, was now dilated to a moderate degree. She had never menstruated, and had suffered no discomfort in consequence; but she complained of almost constant pain in the right side of the

abdomen, and she wished to know if anything could be done to relieve that, and also if matters otherwise could be righted.

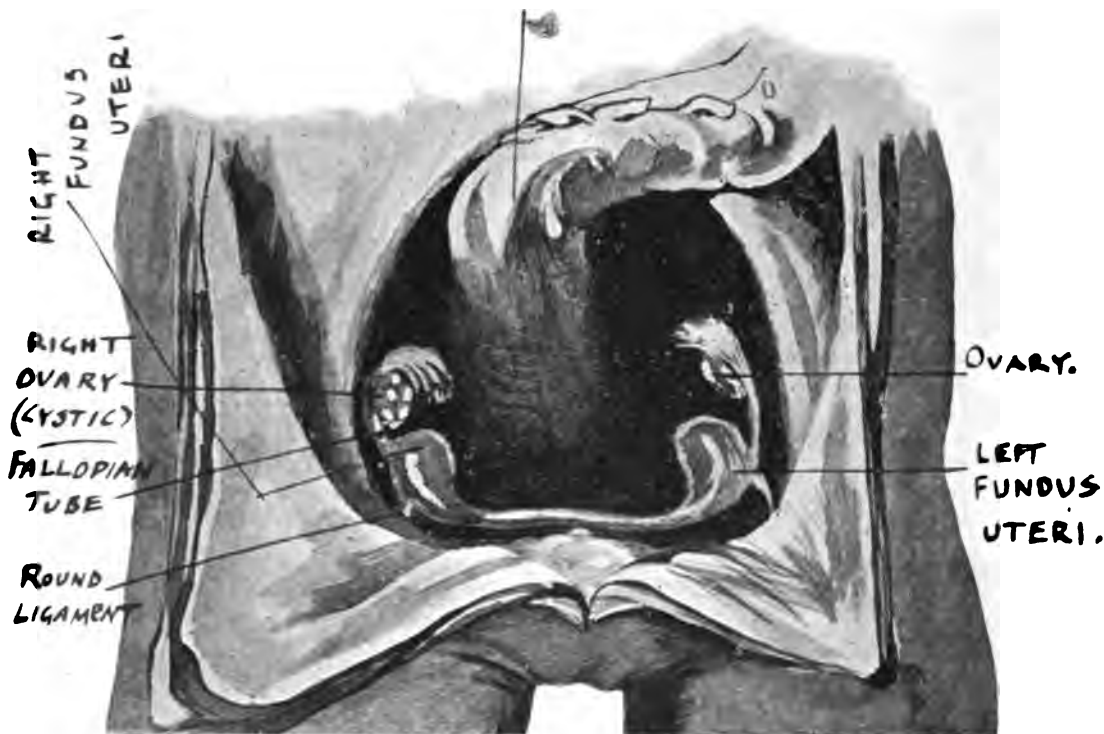
On examining her per rectum I found a body to the left, and another to the right of the pelvis, which I took to be the ovaries. I did not think any operation would be of any service, and advised the patient to wait and consider this advice.

Two months afterwards she returned, and begged of me to do something to relieve her condition.

I opened the abdomen, Dr. Barrington assisting, and found the condition of the

only the left ovary behind. The left round ligament was normal in size. The right one was very greatly increased in size, and the uterine artery on that side was found close to the round ligament. Her convalescence was uneventful, and when examined P.S. after leaving the private hospital great was my surprise and delight to find it was possible to push in the finger nearly 5 inches. Releasing of the tight band previously existing enabled this to take place. She had quite lost her old pain, and in a letter received from her a few weeks ago she wrote :—"I have been home nearly a month and I am glad to say I feel a long way

PELVIC COLON.



pelvis to be exactly as represented in the sketch, for which I am indebted to Dr. S. A. Smith, of the anatomical department of the University.

The peritoneum was tightly stretched over the pelvis without a fold of any kind. On the right side the elongated ovary was cystic, and this no doubt accounted for the pain of which she complained. The left ovary was normal as to size, shape and structure. Both Fallopian tubes were normally developed. On the right and left side were two bodies representing uteri. I cut away these, leaving

better ; in fact I have never felt so well—not even before I was married."

Professor J. T. Wilson, who kindly examined the specimen, sent me the following note :—"From the unavoidable absence of precise information regarding the relations of the more caudal portions of the utero-vaginal elements it is impossible to decide with certainty what the exact nature of the condition has been. But it seems tolerably clear that the body of the uterus has been completely cleft, and at least more nearly approaching to the didelphic than to the bi-

cornuate condition. There is no sign of a lumen on either side at the level of section, and I am inclined to believe that there has been entire atrophy, or non-development of the caudal portions of the Müllerian ducts from which the vaginal part of the normal canal ordinarily originates.

"The transversely running arcuate band, described as having been present forming a pelvic connection between the bilateral uterine elements, I am disposed to interpret as the transversely stretched upper portion of the 'genital cord,' through which the caudal portion of the fused Müllerian ducts normally pass towards the urogenital sinus.

"There would appear to have been present a very thick and short representative of the round ligament, and on one side especially this seems to have retained its foetal relationship as an obvious caudal continuation of the Wolffian body like the foetal gubernaculum of the male. On this same side the remains of the Wolffian body seem to form a tolerably bulky parovarian mass alongside the markedly elongated ovary, thus preserving to a considerable extent the foetal character and relationship."

CLINICAL AND PATHOLOGICAL NOTES.

CASE OF DIFFUSE HYPERTROPHY OF ONE BREAST.

A YOUNG maiden of 22 years for two years had noticed her left breast gradually increase in size, without any pain, until it became more than double the size of the other. On inspection the left breast looked turgid, with a stream of large blue veins running from it towards the middle and upper part of the chest, and with a normal nipple. On palpation no tumour could be felt in it, but the substance of the mamma felt somewhat uneven. The whole mass felt elastic, but no true fluctuation could be elicited. An exploration of the breast was made according to Warren's plastic resection method, and having turned the breast over numerous punctures in the gland were made in all directions with an aspirator's needle without obtaining any fluid. No adenomata could be felt, but to make sure a deep incision was made in the thickest part of the gland. No adenoma were found. A small wedge of breast was removed and examined by Dr. Sydney Jamieson, pathologist to the Sydney Hospital, who pronounced it to be chronic mastitis.



The question still remains—Is this painless enlargement of one breast in a virgin really due to chronic mastitis, or should we not consider it as a case of diffuse hypertrophy? Against this last view is the opinion of many writers on the subject, who think that diffuse hypertrophy is always bilateral. On the other hand some very high authorities have described cases of diffuse hypertrophy affecting only one breast, notably J. Collins Warren, of Boston, who describes a case in a girl of 17 presenting all the clinical features of my case. This he considers typical of that variety of diffuse hypertrophy which occurs in young women, the other variety occurring in pregnant women. Warren's case was benefited by the use of a supporting bandage for one year and a-half.*

* The *Journal of the American Medical Association*, July 15, 1905—page 159.

Sydney.

T. FIASCHI, M.D.

Fresh Air League.—At the seventeenth annual meeting of the Fresh Air League, Sydney, held last month, the annual report stated that since the work of the league began in September, 1891, 3846 persons have received its benefits, an average of about 226, chiefly children, each season, which lasts from November to April. During last season 125 women, 112 children, and 7 men were sent to the country, the children especially having benefited by the change. The personal appeal made in place of the annual ball was very successful, and resulted in £248. Canon Boyce, in seconding it, said the extension of the society was a protest against the slum areas of Sydney, which should not be allowed to exist. The report of the City Improvement Commission would be altogether short of what was expected if it dealt with the widening of streets and beautifying of areas without touching the slum areas. The balance-sheet showed that receipts amounted to £805 4s 4d, and £415 1s 4d trust account, and £7 4s 11d treasurer's account, remained at the bank.

REVIEW AND NOTICES OF BOOKS.

APPLIED ANATOMY: SURGICAL, MEDICAL, AND OPERATIVE. By John McLachlan, M.D., F.R.C.S. (Eng.). Revised and largely rewritten by A. A. Scot-Skirving, C.M.G., F.R.C.S. (Ed.), Assistant Surgeon, Edinburgh Royal Infirmary; Surgeon, Leith Hospital. Two vols. Fourth edition. Edinburgh: E. & S. Livingstone. 1908.

One is always glad to welcome an old friend dressed in modern guise. McLachlan's *Applied Anatomy* has been an extremely useful book for more than 20 years, and now Dr. Scot-Skirving, of Edinburgh, has taken it in hand, and has in this, the fourth edition thoroughly revised the first and largely rewritten the second volume.

These volumes have been compiled in the first place to supply both the surgeon and the physician with essential anatomical points, which can be applied by the one in the operating theatre and by the other at the bedside. Such books are always very necessary, because in spite of the weeks and months spent by the student at the dissecting table, we fear that the majority of medical men have but a very superficial knowledge of that anatomy that the surgeon requires during the course of an operation. For this reason one finds it necessary to have some guide in which the chief anatomical points are set forth, in a more or less condensed fashion, so that those who feel that their anatomical knowledge will not bear too great a strain, can run over the details before they go to operating such, for instance, as the ligature of the large arteries—where they must have a clear idea of the exact relations of the various structures. McLachlan's *Applied Anatomy* will be found to admirably supply that essential knowledge.

In the first volume the set operations on the arteries have been first dealt with; then follow amputations and incisions; after this, the anatomy of the joints is set forth, and in three most useful chapters the special regions about the hip and buttock, the knee-joint, the ankle and foot, are treated with admirable detail. Fractures occupy a good space, and the volume ends with special chapters on the eye and ear.

The second volume, dealing as it does with the more modern advances in surgery, has been largely rewritten, and we can congratulate Dr. Scot-Skirving on his sound work. In this volume we find, as in the first, that the anatomical points are dwelt upon very fully, after this the operations are described. Of course it stands to reason that the descriptions of the operations in this volume must be very condensed, in fact so condensed that the young surgeon will find it advisable to consult some larger work in order to get details; then having them, let him return to this work so that he may run his eye over the concentrated descriptions.

We repeat that the chief feature of this work is the admirable manner in which it supplies the anatomical points; it is par excellence a work on applied anatomy, and as such will hold its own with any other that we have knowledge of.

THE THEORY OF IONS: A CONSIDERATION OF ITS PLACE IN BIOLOGY AND THERAPEUTICS. By Wm. Tibbles, M.D. London: Messrs. Rebman Ltd. Price, 2s 6d net.

In this small book there is nothing which can be regarded as a new contribution; there is nothing which has not been written before and written as well. Yet the existence of the book is justified. It places before its readers with desirable conciseness matter which entailed a certain amount of labour to collect, and no little discrimination to condense and systematise,

matter, too, which being widely distributed among monographs and comprehensive volumes lay outside the range of the man of many duties, whilst, at the same time, it claimed his attention. The author recognising this, supplies the material which can be readily absorbed, but no more. He has trimmed off the redundancies of its presentation dress, and it is all the more acceptable to the faculties of the average reader on this account.

Dr. Tibbles himself carries no torch of genius to illumine dark places along the path of science, but he has carefully followed those who have done this, and judiciously selected from their findings such portions as may be understood and retained, without exacting effort, by the many who have an hour or two unfilled and wish to stray beyond their routine readings. Moreover, there now exists a very material reason why medical men should become conversant with the matter embodied in this unpretentious book. Ionization has become a recognised procedure, not only by electro-theraputists but by an increasing number of those who devote their attention to other branches. The possibilities of the process are not ascertained, but many triumphs are anticipated, and some are being recorded day by day throughout the medical world. It is true that the author devotes but little space to the consideration of ionic medication, and this is to be regretted; yet it is well not to confine our attention to the aspect of a subject which solely concerns our art—it is advisable to know something of it beyond its adaptability to the practitioners' needs.

Having read "The Theory of Ions"—which can be done in spare moments and without fatigue—one reflects that it is possible to derive from a small inexpensive book much profitable information, and much lasting gratification that this has been acquired.

SKIN DISEASES: THEIR NURSING AND GENERAL TREATMENT. By G. Norman Meachen, M.D. B.S. (London). London: The Scientific Press, Ltd.

A very excellent little book, and although written specially for nurses, will be found to contain much pleasurable and profitable reading to any member of the medical profession who may happen to be interested in dermatology.

In writing a small book on this subject, the difficulty which at once presents itself is that of elimination—of deciding the relative importance of the diseases and the extent to which they are to be considered. In this Dr. Meachen has shown great judgment, discussing freely, especially in treatment, such subjects as eczema, psoriasis, scabies, ringworm, etc., whilst others of less everyday importance are relegated to judicious limits. Much valuable general advice is given to the nurse, and she is taught her case-relation to the medical man and to her patient, her limitations in diagnosis, questioning and treatment. A very pleasing feature of the book is its accurate and detail information. It tells exactly how to apply ointments and how to remove them; how to deal with crusts; it speaks on the use and abuse of soap, and gives a good article on baths, and an admirable one on ulcers of the leg and their treatment. The hair: its general management, its ordinary ailments and their treatment receives also a fair amount of attention. This book from beginning to end gives plenty proof of having been written by one who knows his subject widely and well—practically as well as theoretically. It gives ample justification for its appearance and for its recommendation to all who interest themselves in diseases of skin.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH NOVEMBER, 1908.

THE AUSTRALASIAN MEDICAL CONGRESS.

SINCE our last issue the eighth session of the Australasian Medical Congress has been held in Melbourne, and all who were privileged to be present and take part in the various proceedings are agreed that this session was the most successful and best organised of any. In saying this we are not in any way disparaging the splendid work and hospitality of the medical profession in the other capitals where the Congress has met in past years. No one can deny that the great success of the Melbourne Congress has been largely due to the Herculean labours of the President, Professor ALLEN, who from the time of his election at the Adelaide Congress in 1905, has not only himself worked like a Trojan, but succeeded in getting a large body of officials to work hard as well. Professor ALLEN's organising powers and great grasp of all details of Congress work were conspicuous throughout the meeting, and we must congratulate him, the General Secretary (Dr. MAUDSLEY), the Assistant Secretaries, and the Honorary Treasurer (Mr. SYME) on the results of their labours.

A due proportion of work and amusement was maintained throughout, and in both departments we may say that successes were scored. The amount of good which is done by such a gathering of medical men from all parts of Australia and New Zealand can never be fairly estimated. It is quite certain that it is not all represented by the papers read or the discussions which take place both in general Congress and in sections. The

renewal of acquaintance with our fellow practitioners and the making of new friendships always bulk largely in contributing to the sum total of the good done by Congresses.

The President's address, which we publish in this issue, was delivered in the Town Hall before a very large audience, and covered a number of most important subjects of practical importance as well as dealing with some most abstruse scientific questions. His reference to such matters of national importance as the birth-rate, infantile mortality, and the training of the child was well timed, and cannot fail to lead to good results in the near future. These questions must be seriously considered by the politicians as well as by the medical profession, since we are all engaged in building up a nation in this young country, and the experiences of some countries in the old world should certainly be impressed upon the general public in this new world. Fortunately, as Professor ALLEN pointed out, the figures bearing upon the reduction of the infantile mortality rate are most encouraging and reflect the large amount of good work which has been accomplished, first by the scientific worker and clinician, and then the translation of this work into by-laws and regulations by the Boards of Public Health and the City Health Departments. With an improved knowledge of child life and the appropriate methods to be adopted for enabling the child to grow up into a physically healthy and mentally well-balanced citizen, we ought to develop a strong and healthy race in this part of the world. The work which has been accomplished by the recent Congress will undoubtedly contribute in the long run towards the attainment of this most desirable object.

Besides the good work done in the different sections, two subjects were selected for general discussion by the whole Congress, namely Hospitals and Syphilis, and the de-

bates on these topics elicited a great variety of opinions. To these we hope to refer on another occasion.

Another valuable innovation was the arrangement for holding combined meetings of different sections. Thus the section of Pathology and Bacteriology met with the section of Medicine to discuss tuberculosis in its various aspects; the section of Surgery met with the section of Medicine to discuss anæsthesia; and these combined meetings were most valuable.

At the concluding general meeting it was decided to hold the ninth session of Congress in Sydney in 1911, and on the motion of Professor ANDERSON STUART, Dr. F. ANTILL POCKLEY was unanimously elected President. It is to be hoped that we shall profit by the experience in Melbourne, and that the next Sydney Congress will be in every way successful. We can scarcely hope to outrival the public and private hospitality so lavishly bestowed on the visitors to Melbourne, but we must see to it that our visitors in 1911 receive an equally hearty welcome.

HOSPITAL MANAGEMENT.

THE general discussion on hospitals, which took place at the recent meeting of Congress in Melbourne, if it did nothing else, revealed the diversity of views in the profession on the question of hospital management and the extreme complexity of the whole situation.

The first resolution submitted emphasised the general principle that no payments whatever should be taken from patients in public hospitals supported by voluntary contributions and Government grants. And it was over this resolution that the greatest amount of discussion took place. It was stated by some that although this might be a desirable theory in the abstract, yet it was practically

impossible to carry out, since the payments made by the patients amounted to a very considerable sum in the course of the year, and if this large amount were not obtained the hospitals would not be able to carry on their work. Two very pertinent answers were given to the objection. It was pointed out that if only the really deserving poor were treated in public hospitals the number of patients would be materially reduced, and consequently the expenditure would be correspondingly lessened; and that if the abuse of hospitals by well-to-do persons were thus checked the subscriptions and bequests from the philanthropic public would be certainly increased. So long as the hospitals vie with one another in securing the largest number of patients, or of operations performed, the tendency to hospital abuse will continue.

In the course of the discussion some facts and figures were given which showed to what an extent the idea of a public hospital supported by the charitably-disposed public, for the relief of the suffering poor, has been departed from in some States. The Launceston Hospital was shown to be one of the greatest offenders in this respect. In fact, on the figures, as given by the Hon. Dr. BUTLER, the Launceston Hospital can no longer be regarded as a public hospital for the poor only, but a hospital to which well-to-do persons are intentionally admitted, and who contribute as much as £1 per day.

The resolution was passed by Congress, and a committee has been appointed to take such steps as may seem necessary to carry it into effect. We must confess, however, that we are not sanguine of the success of this committee's operations; the difficulty lies largely in the apparent impossibility of convincing the lay managers of public hospitals that what the medical profession views as hospital abuse actually exists as a real evil; and it seems most

probable that a general abstract proposition carried by a meeting of medical men will not be regarded by the general public with much favour.

While we feel confident, however, that the abolition of all payment by patients in public hospitals is the first essential step towards hospital reform, it yet seems most necessary that some constructive policy should be adopted. The failure to bring forward any scheme to meet the altered conditions which would result if all payments were abolished was no doubt due to the great difficulties surrounding it. But that is no reason why the matter should not be faced fairly and squarely, and we submit that the work of the committee to be of any service must be in elaborating some constructive policy which will embrace provision for patients who can pay moderate fees, but not those of ordinary private hospitals.

THE MONTH.

Hospitals and Charities in New South Wales.

THE Government Statistician has supplied some interesting facts and figures bearing on the operation of public hospitals and charities in the State of New South Wales during the past year. 44,667 indoor patients were treated, and 98,809 persons were treated as outdoor patients, not counting 7689 persons who received attention by the honorary dental surgeons at the United Dental Hospital of Sydney. Of the 44,667 indoor patients, 31,742 were cured, 6410 relieved, 981 unrelieved, and 2767 died, leaving 2767 as remaining in hospitals at the end of the year. 7353 persons were admitted to charitable institutions, and the inmates at the end of the year 1907 numbered 6163, including 1485 children. The deaths of 870 persons were recorded, 759 of these being at the Government asylums. Children under the control of the State Children's Relief Board, and men at the labour depot and refuge have not been included in the above figures. The Government subsidy amounted to £128,690; a sum of £87,812 was received as subscriptions and donations; the patients contributed £32,126;

interest and invested funds amounted to £8512 and other sources are represented by £5985, making a total of £263,125. The Hospital Saturday Fund collections, which appear in the revenue of hospitals, this year amounted to £6843. On the expenditure side salaries and wages account for £85,639; building and repairs, £40,260; and maintenance and miscellaneous items, including outdoor relief, £128,410, making a total of £254,309. If we reckon the population of the State at approximately 1,500,000 we find that about 1 in every 10 of the population was an indoor or outdoor patient at a public hospital. When we consider that, except in the case of country hospitals where the medical officers receive small allowances, the most of the work involved in attending on this large number of patients is done by honorary visiting officers, some idea of the enormous amount of gratuitous service is rendered to the community by the medical profession.

Patent Medicines.

An attempt to regulate the importation and sale of patent medicines in the Commonwealth has been made by the introduction into the House of Representatives of a bill to amend the Commerce Act in certain particulars. In the first place the bill provides that "if it appears to the Comptroller-General that any label, wrapper, advertisement, or printed matter applied to or accompanying patent medicines and invalid and infants' foods contains statements in regard to the effects or efficacy of the goods which are untrue or misleading, or reliance upon which is likely to lead to harmful consequences to the users of the goods, the Comptroller-General may require the owner of the goods, before their delivery from the control of the Customs, to remove or alter labels, wrappers, or advertisement in such a way or to such an extent as he directs. If the owner of the goods does not within one month either comply with the requirements or enter the goods for export, the goods shall be forfeited." Further, provision is made that if the Governor-General is satisfied that any trade description or part of trade description required by the regulations would involve the disclosure of the trade secrets of the manufacture or preparation, and that such disclosures are not necessary for the protection of the health or welfare of the public, the Comptroller of Customs may allow the trade description with respect to

those goods to be modified in such manner as he directs. It appears that the introduction of this new bill is to some extent due to the persistence of Mr. Thomas, the representative of Broken Hill in the Federal Parliament. At his instance the House of Representatives had previously directed the Government to see that the ingredients of all patent medicines were set forth upon the bottles or packages in order that people might know what they were buying. If this bill pass, it will be of some service in checking the importation and distribution of injurious and worthless patent medicines.

The Friendly Societies.

The annual report of the Registrar of Friendly Societies in New South Wales has been presented to Parliament. It shows that the number of societies at the beginning of 1907 was 45, which was increased to 62 as a net result of the year's transactions. Of this total 22 were of the affiliated type, *i.e.*, possessing branches. A majority of the societies extended the sphere of their operations, while only four lost ground. The membership of friendly societies proper at the end of 1907 was 116,985, or an increase of 10,307. The total membership was more than twice as large, both numerically and proportionately, as in any previous year. During the year there were 22,504 persons sick at a total cost in sick pay of £96,129. The average payment to each showed a decrease, but in other particulars the experience of 1907 was distinctly unfavourable, and the disbursement per member exposed to risk showed an excess of 1s 9d over the figures for 1906. The increase in sickness was not reflected in the mortality rate, which was most favourable. There were 733 deaths during 1907, equal to 6.6 per 1000 of mean membership, and £24,338 was paid away for funeral benefits, equal to about 4s 4d *per capita* of mean membership. An amount of £110,895 was paid away during 1907 to provide for medical attendance and medicine. This represented an average cost of 19s 10d a head of mean membership.

Private Hospitals' Bill.

The Private Hospitals' Bill, which was introduced into the New South Wales Legislative Council by the Hon. Dr. Mackellar, has been considered in detail by the Council of the New South Wales Branch of the British

Medical Association in conference with Dr. Mackellar, and some amendments suggested. The bill was introduced into the Legislative Assembly by Sir James Graham, M.D., on November 11th, who said that the bill had been referred to a select committee, and the evidence given before this committee more than ever revealed the urgency and pressing need for a measure of this kind. The bill was also the outcome of a recommendation of the Royal Commission, which sat some years ago to inquire into the causes of decline in the birth-rate. Its primary object was to establish some system of regulation and license, and the exercise of some kind of control over private hospitals run for the purpose of treatment of medical and surgical cases, and for the lying-in of women. Such institutions were in many cases run by private persons, who were either doctors or nurses, but in some instances by persons who were neither, and who were under no control. Most of the private hospitals in the State were admirably conducted, but others were far from it. Under this bill places of a doubtful character would be known to the Government, and could be tracked down, and anything like nefarious practices stamped out. He went on to explain that the bill provided for notification of birth and death in a private hospital within 24 hours. He went on to say that the Minister had power to revoke licenses of private hospitals where good cause was shown. The second reading was carried on the voices. There seems every prospect now of this most useful bill being passed into law, and it cannot fail to do good in the suppression of so-called lying-in hospitals, which are only abortion shops.

OWING to the great pressure on our space this month, due to the publication of the proceedings of the Australasian Medical Congress, we are obliged to hold over our usual Review of Current Medical Literature, as well as several other articles.

The Commissioner of Public Health, Queensland (Dr. B. B. Ham) has called a conference of medical men who are acting as health officers for local authorities to deal with the question of the destruction of mosquitoes as a preventive means against such diseases as filaria, malaria, yellow fever, and dengue fever, and it is hoped that through the medical officers the local authorities will take steps in the destruction of mosquitoes, which are regarded as the means of conveying disease.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

A MEETING of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on October 30th; the President, Dr. G. H. Abbott, in the chair. There were about 35 members present.

The minutes of the preceding meeting were read and confirmed.

The CHAIRMAN announced the election of the following members:—Drs. L. A. H. Conroy, Crookwell; A. Oxley Wilson, Sydney; Elsie F. Browne, Sydney; James Kearney, Parramatta; Josiah Corlis, Bangalow; Charles C. Corlis, Bangalow; H. C. E. Donovan, Ballina; and the nomination of the following candidates:—Drs. Whiteman, Strathfield; Wilford White, Sydney; C. E. W. Lyth, Wentworth Falls; G. R. C. Cotton, Walgett; R. O. Williams, Cessnock.

Dr. MILLS read notes on "A Case of Tumour of the Spinal Cord." Dr. Hinder described the surgical procedure in removal of the tumour, and Dr. Flashman described the pathological nature of the tumour.

Dr. FIASCHI congratulated the authors of the papers on their diagnosis and treatment. He sympathised with Dr. Hinder in his trouble in stopping the flow of cerebro-spinal fluid. He described an operation he had seen for removal of a bullet from the spinal cord, in which sudden death had resulted from a large flow of cerebro-spinal fluid.

Dr. CHISHOLM referred to Dr. Hinder's remarks on the absence of difficulty of movement after removal of the spines and laminae of the vertebrae.

Dr. CHENNALL asked Dr. Hinder if he thought it would have been better to have operated with the head low so as to prevent the excessive flow of cerebro-spinal fluid.

Dr. P. FIASCHI referred to the trouble in dealing with the flow of cerebro-spinal fluid in operations on the brain and spinal cord.

Dr. MAITLAND said that in most of the text-books on surgery it was recommended in the operation for laminectomy to make an osteoplastic flap. He found this very difficult, and agreed with Dr. Hinder in the method he adopted in preference to the osteoplastic flap. In one case of fracture paraplegia he had removed three spines and laminae, and the movements were perfect afterwards.

Dr. MILLS, in reply, said he gave the anæsthetic, and he did not feel at all comfortable when he found the pulse steadily failing. The patient was profoundly collapsed for three or four days after operation. His recovery was gradual, but very complete. He agreed that early operation in these cases were most desirable.

Dr. HINDER replied that the fluid escaped under such great pressure that the position of the patient would have made no difference. In cerebral cases the patient could lose a great deal of cerebro-spinal fluid without suffering much in consequence.

Dr. ISMISTER moved a resolution of sympathy with Dr. Elsie Brown, and after considerable discussion as to the exact wording of the resolution, it was carried unanimously.

Dr. TAYLOR YOUNG exhibited a specimen of abnormality of the female pelvic organs, and described the case. (See p. 607.)

Dr. PALMER also exhibited a specimen of abnormality of the uterus.

Dr. HINDER said he had had unique experience of three cases of bicornuate uterus, in which the depth of the septum varied.

Dr. WORRELL remarked that these cases were of more than academic interest. There was the practical difficulty of diagnosis, and when pregnancy occurred there was often difficulty in removing the placenta.

Dr. TAYLOR YOUNG replied.

Dr. CORLETT read notes of a case of branchial fistula, and exhibited the patient. He also exhibited a specimen of urine from case of chyluria.

Dr. MAITLAND considered that the only satisfactory way to deal with cases of branchial fistula was to dissect out the whole fistulous tract, but the operation was often very difficult. If the dissection were incomplete there was not complete cure and a liability to recurrence.

Dr. HINDER had treated six cases of this nature by opening up the fistula and swabbing out thoroughly with strong iodine and closing up. In all cases he had thus treated the cure was complete and permanent.

Dr. CHISHOLM had operated by opening up the sinus and swabbing with strong carbolic acid, with satisfactory results.

Dr. RINNEY had also operated successfully in the same way.

Dr. SINCLAIR GILLIES, referring to the case of chyluria said that in cases of this nature rest in bed generally secured the absence of the chyluria from the urine, but it returned when the patient got about again. He thought it might be justifiable to attempt some operative interference in cases of chyluria after ascertaining by cystoscopic examination from which kidney the chylous urine was coming.

Dr. CORLETT replied.

West Australia.

THE ordinary meeting of the above Branch was held at the Perth Public Hospital on October 28th, 1908. Present: Dr. Officer, vice-president (in the chair), and 17 others.

Accounts to the amount of £2 6s 6d were passed for payment.

After the correspondence had been dealt with,

Dr. CLELAND read a paper on "Some Interesting Pathological Cases: Human and Animal," and, in conjunction with others, showed specimens.

Dr. LESCHEN read the clinical notes on two of the cases and Dr. CUTHBERT on one.

Dr. CLELAND also showed photographs of an infective granuloma of unknown pathology affecting the genitals of aborigines in the north-west. The disease is practically confined to the aborigines, though Dr. TYMMS was able to show to the meeting a white man, at present in hospital, suffering from apparently the same condition.

On behalf of Dr. AMBROSE, Dr. TYMMS showed about three-quarters of a stomach removed for malignant disease from a man. The stomach was torn through the ulcerated patch, and on the man being brought to the hospital Dr. Ambrose had removed the above-mentioned portion of the stomach. This was a fortnight before, and the patient is making a good recovery.

Queensland.

A MEETING of the Queensland branch was held on Friday, November 6th, at the Technical College, Brisbane. Dr. J. Lockhart Gibson, President, in the chair.

Dr. J. CAMERON, of Ipswich, read a paper upon "Acute Primary Pneumonia." (See p. 602.) Dr. Hardie agreed with Dr. Cameron as to the difficulty

of diagnosis in those cases of pneumonia in which initial symptoms pointed to some abdominal derangement. He preferred when operating for Empyema of children to excise a portion of rib, as better drainage was thereby secured.

Dr. ROBERTSON advocated early operation for Empyema; but thought that in most cases it was not necessary to remove any rib.

Dr. SALTER referred to cases which had been reported, and to some which had come under his notice which appeared to establish the infectivity of Empyema. He considered that the channel of infection was very often through the alimentary canal.

The PRESIDENT thought that infection was less likely to occur now that the value of fresh air treatment was generally recognised. He advocated the examination of the ear in cases where head symptoms occurred, in view of the importance of early puncture in cases of otitis media. He thought there might be an advantage, and could be no disadvantage in removing a portion of the rib in the operation for Empyema.

The HON. SECRETARY gave notice of motion—"That it be an instruction to the incoming Council to revise the rules of the Branch."

REPORTS OF OTHER SOCIETIES.

The Sydney and Suburban Provident Medical Association.

THE annual meeting of the above Association was held at 121 Bathurst-street, Sydney, on October 27th.

The Hon. Secretary's report showed there had been an increase of 214 members during the year, the roll now numbering 3583. The active medical staff consisted of 107 members, the consulting staff had 45 members on its list, while 50 chemists dispensed for the Association. The working of the Society had been very satisfactory, and what few complaints made during the period had been of a trivial character, and had been settled without trouble.

The Hon. Treasurer's financial statement testified to the sound position of the Association. The amount collected during the twelve months being £5680 2s 11½d. The active medical staff received in dividends £3039 2s, and the chemists' account totalled £1306 16s 10d.

The total expenses of the Association were 20 per cent. on the gross takings, a rate below that of any proprietary Society of the kind, or of any Industrial Insurance Company.

It was moved and carried that the committee, who had acted during the year 1907-1908, should be re-elected for 1908-1909.

A unique ceremony was performed in J ward of the Sydney Hospital last month by Mrs. Campbell, before a representative gathering, when the Sir Galahad series of vitreous fresco tile pictures presented by the congregation of St. James's Church were unveiled. Sir Galahad is prominent in the Arthurian legends as the only Knight in the Round Table who because of his purity was permitted to see the Holy Grail, and these three pictures show Sir Galahad in his quest of the Grail. They have been let into the top of the ward's southern wall, and gave a pretty effect. The pictures were made for the last Paris Exhibition, and constituted a valuable asset for show purposes. Sir Matthew Harris was present on behalf of the hospital committee, and Mr. C. H. Helsham (secretary) directed the arrangements.

AUSTRALASIAN MEDICAL CONGRESS.

MEETING FOR GENERAL BUSINESS ON MONDAY, 19th OCTOBER 1908

IN commencing the proceedings of Congress, Professor Allen, who was received with acclamation, stated that he was fully sensible of the high office to which he had been elected as President of the Eighth Session of the Australasian Medical Congress, and could only hope that in some degree that which was hoped for from him might be accomplished. He would ask them in the first instance to accept the report of the Executive Committee, which had already appeared in print and had now been circulated amongst the members present, and therefore he would take the report as having been read. That report he considered would speak for itself, and he thought that it could be claimed for the General Committee and the Executive Committee that a great deal of trouble had been taken in preparation for the Congress. He had to announce with much regret that Dr. Tidawell would be unable to be present during Congress, owing to a death in his family, and that in consequence the presidential address in Pathology and Bacteriology which he was to have delivered at the Masonic Hall on Friday afternoon would not now be given, and the arrangements for Friday afternoon, therefore, be varied, Congress proceeding at once with the consideration of the succeeding matter—Discussion on Syphilis.

REPORT OF THE EXECUTIVE COMMITTEE.

At the final general meeting of the Seventh Session held in Adelaide in September, 1905, it was determined "That the next meeting of Congress be held in Melbourne—provisionally—in 1908," and Professor H. B. Allen, M.D., was elected President of the Eighth Session.

In December, 1905, at a meeting of the Presidents of Medical Associations of Victoria, together with the Past President, Sir T. N. FitzGerald, and the President-elect, it was determined that the General Committee of the Eighth Session should be composed of six members nominated by the Medical Society of Victoria, six by the Victorian branch of the British Medical Association, three by the Faculty of Medicine in the University of Melbourne, three by the Medical Defence Association of Victoria, three by the Ballarat division of the Victorian Branch of the British Medical Association, three by the Bendigo Branch of the Medical Defence Association, three by the Border Medical Association (Victorian members), together with the President of the Medical Board, the Chairman of the Board of Public Health, the Government Medical Officer, the Inspector-General of Hospitals for the Insane, the Director-General of the Army Medical Services of the Commonwealth, the Principal Medical Officer for the Victorian Forces, and the Health Officer of the City of Melbourne, with power to add to their number. The Committee was constituted accordingly, and subsequently exercised its right of co-option freely, till it included 139 members, representing very fully the profession in the metropolitan and extra-metropolitan districts. The General Committee appointed an Executive of 31 members, Mr. G. A. Syme being appointed Treasurer, Dr. H. C. Maudsley, General Secretary, and Mr. L. J. Balfour, H. D. Stephens and Mr. W. B. Vance, Associate Secretaries. The General Secretary obtained leave of absence for a short visit to England, and Dr. A. Jeffreys Wood was appointed Acting General Secretary during his absence. A Reception Committee, an Accommodation Committee, a Congress Dinner Committee, and a Literary Committee were also constituted.

Their Excellencies the successive Governors-General, the Lord Northcote and the Earl of Dudley, graciously granted their patronage, as did also their Excellencies Vice-Admirals Sir Wilmot H. Fawkes and Sir Richard Poore, and their Excellencies the Governors of the Australian States, of New Zealand and Fiji, the Lieutenant-Governor of Victoria, and the Administrator of New Guinea. The Hon. the Premier of Victoria and his Ministry granted their special countenance and support to the Session, and promised that the Transactions of the Session should be published by the Government Printer. Special concessions for travelling were made by the Railway Departments of Australia and New Zealand, and by the various shipping companies. The Council of the University of Melbourne kindly granted the use of the University buildings for the purposes of the Session.

The Presidents of former Sessions of Congress were appointed Vice-Presidents of Congress, and with them were associated the successive Fleet Surgeons, the Director-General of the Army Medical Services of the Commonwealth, and Dr. John Williams.

Nineteen honorary members of Congress were appointed, including the Presidents of certain learned societies, representatives of allied professions, members of the Faculty of Medicine not medical practitioners, and a few others, among whom may be mentioned the Registrar of the Pharmacy Board, Mr. H. Shillinglaw, who has rendered much service as a member of the Museum Committee.

Local Secretaries were appointed for the various States as follow:—For New South Wales, Dr. A. A. Palmer; for the North Island of New Zealand, Mr. Tracy Inglis; for the South Island of New Zealand, Mr. F. Stanley Batchelor; for Queensland, Mr. W. W. R. Love; for South Australia, Mr. J. B. Gunson; for West Australia, Dr. A. J. H. Saw; and for Tasmania, Dr. Gregory Sprott.

Representatives of Governments were accredited as follow—For New South Wales, Dr. J. Ashburton Thompson; for New Zealand, Dr. J. M. Mason; for South Australia, Dr. T. K. Hamilton.

The Congress was divided into eleven sections, a section of naval and military medicine and surgery being created in accordance with the resolution adopted at the preceding session in Adelaide. After correspondence with Committees in the various States, a President and three or four Vice-Presidents were appointed for each section from among the profession in the States other than Victoria. Two Secretaries were appointed for each section from among the Victorian members, and after careful consideration Sectional Committees of Victorian members were also created, and these Committees have rendered great service in choosing subjects for discussion in the various sections, and in obtaining writers and speakers on these subjects.

It was determined that meetings of Full Congress should be held to discuss (1) Hospitals in relation to the Medical Profession, and (2) Syphilis; and that addresses in Full Congress should be given by the Presidents of the sections of (a) Medicine, (b) Surgery, (c) Pathology and Bacteriology, (d) Public Health and State Medicine. Special Committees were appointed to arrange debates concerning Hospitals and concerning Syphilis. Another Committee was appointed to organise the Congress Museum. The Executive is most grateful to these Committees for their successful labours.

In accordance with instructions from the Seventh Session, Draft Standing Orders have been prepared for Congress, and will be submitted for your approval; and steps have been taken to secure improvement and uniformity in medical statistics, concerning which the report of a special Committee will be placed before you.

The Committee appointed by the Seventh Session to promote union of the medical organisations of Australasia made no progress, owing to many Associations failing to appoint representatives; but since that session the Medical Society of Victoria has entered into the closest possible form of union with the Victorian Branch of the British Medical Association.

As the outcome of very careful discussion, it was resolved that the Eighth Session should be held from Monday, October 19th, to Saturday, October 24th, 1908. It was necessary to choose a time when the University of Melbourne would be in vacation, so that all the lecture rooms would be available, as well as the Wilson Hall and the Conservatorium of Music. Mid-summer and Mid-winter were deemed unsuitable. After correspondence, the Universities of Sydney, Otago and Adelaide kindly resolved to grant leave of absence to University teachers desiring to attend the Congress, the University of Otago adding the condition that provision should be made for the discharge of University duties.

Two circulars have been issued widely to members of the profession throughout Australasia; and draft programmes of Congress work and entertainment, and preliminary drafts of subjects recommended for consideration in the various sections have been forwarded, as far as practicable, to members of Congress as they joined. A full programme of the proceedings of Congress has during the past week been distributed among the members.

His Excellency the Admiral consented to depute a member of his medical staff to attend the Congress, and the Committee notes with pleasure the active participation of Fleet Surgeon J. Falconer Hall. Invitations were sent to members of the Royal Army Medical Corps serving in India, and to members of the Indian Medical Service, and these were widely circulated through the kindness of the Director-General of the Indian Medical Service.

The Executive has to deplore the death of Sir Thomas Fitzgerald, Past President of the Congress, who had taken an active part in the earlier work of the Committee, and the deaths of two members of the General Committee, Dr. J. R. McInerney, of Fitzroy, and Dr. J. A. Reid, of Sale.

The Executive is most grateful to those ladies and gentlemen who have so kindly come forward to assist in entertaining the visiting members of Congress; and also to the Deputy Postmaster-General of Victoria, who has been so good as to provide a special post office, telephone, and telegraph service for the Congress.

The number of members who have joined the Congress is 692; of whom 381 are resident in Victoria, 113 in New South Wales, 66 in South Australia, 34 in Queensland, 32 in New Zealand, 24 in Tasmania, 21 in West Australia, 1 in Fiji, 1 in the Gilbert Islands, and 19 are honorary members.

The PRESIDENT then asked that the report as printed be adopted, and called upon Dr. Mason to second the motion for its adoption.

Dr. MASON (New Zealand) in supporting and seconding the motion, said it gave him very great pleasure indeed to do so. There were points in the report of very great interest to all assembled, and he trusted an attempt might be made to secure the amalgamation of all societies throughout Australasia having for their object the betterment of the medical profession and, he might add, of the general health of the community, which things really went hand-in-hand; and he had pleasure in asking Congress to accord a hearty vote of thanks and appreciation to the Executive Committee for their efforts.

The report was adopted.

The PRESIDENT stated that within recent times there had passed away one of our eminent Past-Presidents, and he desired to move—"That the Congress place on record its great sorrow at the death of the late Sir Thomas Fitzgerald, C.B., F.R.C.S., and its sense of the great services rendered by him to the public and the medical profession generally.

COLONEL THOMSON in seconding the motion, explained that he was with the late Sir Thomas Fitzgerald at the time of his death. He looked back with an almost boyish pride to the time when "Fitz" had been pleased to compliment him on some little surgical work he had performed. The name of "Fitz" was a name to conjure with. He was the Chief Justice of the High Court of Australian surgery—indeed he was that High Court itself, and he could endorse the sentiment expressed in a recent notice of his death, which stated that in him Australia had lost her greatest surgeon. He was truly a great surgeon, as he was a great man. He seconded the motion.

The motion was put, and carried in silence.

The PRESIDENT mentioned that there was another

Dr. CROWTHER moved an amendment—"That the further consideration of the report be referred to the section on Public Health and State Medicine."

This was seconded by Dr. BATCHELOR, and the amendment, on being put to the meeting, was carried.

RE STANDING ORDERS.

Dr. SYME said that at the final meeting of the last Congress the President drew attention to the fact that owing to the absence of standing orders he had himself to decide as to the order of procedure, and especially in regard to the limitation of speeches. Subsequently Dr. Hayward moved a resolution that the next Congress draw up standing orders for the conduct of future Congresses. That resolution was carried, and at almost the first meeting of the Committee a sub-committee was appointed to draw up standing orders, and these have now been printed and circulated amongst the members present. He had pleasure in moving that these standing orders be adopted, and that they be submitted *seriatim* in order that any desired alteration could be effected.

Dr. BUTLER, in seconding the motion, suggested that

..... The cause of his/her death was as hereunder written :—

CAUSE OF DEATH.	† DURATION OF EACH CASE.			
	YEARS.	CALENDAR MONTHS.	DAYS.	HOURS.
(1) Disease causing Death*				
(2) Immediate Cause of Death				
(3) Complications and Contributory Causes, if any.				
NOTE.—Neither (2) nor (3) need be filled in if doubt exists as to the item.				
Confirmed by	} Post Mortem			
Not confirmed by				
* In Death by Violence state				
	(1) Mode of injury, accidental, suicidal, or homicidal;			
	(2) Nature of the injury and immediate cause of death;			
	(3) Contributory causes or conditions.			
† The duration of each form of disease or symptom is reckoned from its commencement until death occurs.				

† The duration of each form of disease or symptom is reckoned from its commencement until death occurs.

matter he would like to bring under their notice. At the last Congress held in Melbourne nearly 20 years ago, Sir W. J. Clarke and Lady Clarke had welcomed members and taken great interest in the proceedings. Lady Clarke very kindly offered to place her house at Cliveden at the disposal of the present Congress Committee. Since then, however, Janet Lady Clarke had had serious illness, and was prevented on the present occasion from being associated with the Congress. He moved—"That the Congress send to Janet Lady Clarke an expression of their sympathy with her in her illness."

This motion was seconded by Dr. MAUSLEY, and unanimously agreed to.

Dr. NORRIS, Chairman of the Board of Public Health, read the report of the Special Committee appointed to confer with the Commonwealth and States' Statisticians on the subject of uniformity of preparation of vital statistics. An alteration in the present form of death certification was suggested.

Dr. ELKINGTON, in seconding the motion, urged that uniformity in vital statistics should be aimed at, as notwithstanding the excellent work performed by our Commonwealth statisticians we must necessarily remain in ignorance of many important factors bearing on the health of the community until this uniformity is consummated, and he had much pleasure in seconding the report.

in clause 8 the word "year" should be substituted in place of the word "date" in order to make it read exactly as intended.

Clause 1, which read—"Ordinary members of Congress shall be medical practitioners, legally qualified to practise in their respective countries, who have paid their subscription to the Treasurer of Congress or to the Corresponding State Secretary," excited very considerable discussion.

Dr. WORRALL (N.S.W.) moved—"That members shall be members of the British Medical Association, and in the case of Tasmania shall be members of the Tasmanian Medical Defence Association."

Dr. A. L. KENNY (Victoria) said that only 400 members of the profession in Victoria out of a total of 1200 belonged to the British Medical Association. It would be unfair to pass a resolution compelling 800 members to throw in their lot with 400.

Dr. SYME (Victoria) regretted that members of the profession did not belong to the British Medical Association; but under the circumstances he considered that it was for the Association to take action, and not the Congress. He considered that the Congress should be maintained on its present wide basis.

Others who spoke to the motion were Drs. THOMSON (Queensland), Dr. CROWTHER (Tasmania), Dr. SPROTT (Tasmania), and the President.

The clause was finally adopted with the insertion of the words "states or" before the word "countries."

The remainder of the clauses were passed without discussion.

STANDING ORDERS.

1. Ordinary members of Congress shall be medical practitioners legally qualified to practise in their respective countries, who have paid their subscription to the Treasurer of Congress or to the Corresponding State Secretary.

2. The Executive Committee reserves the right to refuse or to return any subscription.

3. The subscription shall be determined for each session by the Executive Committee thereof, and shall be payable to the Treasurer or State Secretary, and shall entitle the member to a copy of the published Transactions of the Congress, if any.

4. Honorary members, not necessarily legally qualified medical practitioners, may be elected by the Executive Committee.

5. There shall be a preliminary General Business Meeting and an Inaugural General Meeting of Congress on the first day and a Final General Business Meeting on the last day of the session. Other general meetings may be held in pursuance of resolution of the Congress or of the Executive Committee.

6. At the Preliminary General Business Meeting the report of the Executive Committee shall be submitted, and also the report of the Treasurer of the preceding session. Other business shall be as arranged by the Executive Committee. Resolutions may be submitted by members of Congress, but only after notice of motion, which must be in the hands of the General Secretary at least a week before the first day of the session.

7. The Inaugural General Meeting shall be devoted entirely to the usual addresses and resolutions. The only speakers shall be those designated by the Executive Committee.

8. At the Final General Business Meeting the place and year of the next session of Congress shall be determined, and the President for that session elected. Resolutions carried in any section or sections and ordered by any section to be reported to the Congress shall be considered. Other resolutions carried in section shall not be reported. Motions may be submitted on behalf of the Executive Committee. Other motions, of which at least 24 hours' notice has been given, may be submitted. The President shall have full power to restrict debate.

9. Subject to any resolution of Congress, the business at other general meetings shall be arranged by the Executive Committee, which may, as far as it deems desirable, designate the readers of papers and the speakers.

10. The proceedings of each section shall be regulated by the President of the section at his discretion, provided that a provisional programme of work for each section may be published by the Executive Committee after consultation with the sectional officers. Two or more sections may meet together for any joint work.

11. The Executive Committee shall determine which addresses, if any, by Presidents of section shall be given in full Congress, and which shall be given in the section. With the exception of addresses to be given in full Congress, the address in any section may at the discretion of the President of section be replaced by a paper or by the opening of a discussion by the President of section.

12. The President of the Congress shall preside at all general meetings of the Congress, unless the Executive

Committee shall with his consent have arranged otherwise. In the absence of the President, the past President of longest standing present shall preside. If this provision fails the meeting shall elect a chairman.

13. In sectional meetings, in the absence of the President of the Section, the available Vice-President whose name is highest in the list of vice-presidents, shall take the chair. If this provision fails, the section shall elect a chairman.

14. Any debate in general or sectional meeting may be interrupted by motion proposed and seconded that the question be now put, or that the meeting pass on to the next business. The motion in either case shall be put without further debate, and, if it is carried, the question shall be put, or the next business called on, as the case may be. Otherwise the decision of the President or Chairman in the conduct of any discussion shall be final.

15. Unless expressly provided otherwise by the Executive Committee, no paper nor report may occupy more than 20 minutes. No speaker in any discussion may occupy more than ten minutes. The author of any paper or report shall have the right of reply, not exceeding five minutes.

16. Notice of all papers, exhibits, etc., to be submitted should be in the hands of the General Secretary or Secretary of Section two months before the opening of Congress, otherwise they will probably not be included in the published programme of sectional work. Papers may, however, be accepted up to and even during the meeting of Congress. All notices of papers, exhibits, etc., are subject to acceptance by the Executive Committee, or in emergency by the President of the Section concerned.

17. Reports prepared at the request of the Executive Committee or of any Sectional Committee should be in the hands of the General Secretary or Secretary of Section at least one month before the opening of Congress, and as far as possible such reports will be printed for distribution at or before the Congress.

18. Short abstracts of papers should be forwarded to the General Secretary or Secretary of Section one month before the opening of the Congress, and as far as possible such abstracts will be printed for distribution at or before the Congress.

19. Members detained in other Sections may forward to the Secretary of any Section a brief note to be incorporated in any discussion or in the report thereof. Such note must reach the Secretary before the close of the discussion in question.

20. All reports or papers submitted to any meeting of Congress shall be handed to the General Secretary or to the Secretary of Section before the close of that meeting. They may not be subsequently altered without the consent of the Executive Committee.

21. No vote of thanks shall be proposed to the author of any paper.

22. The Executive Committee reserves the right to determine for itself or by any committee appointed for the purpose what reports, papers or speeches, or what parts of reports, papers or speeches shall be published in the Transactions of the Congress.

FINANCIAL REPORT.

In the absence of Dr. Hayward, the report and balance-sheet were presented by Dr. Syme, and adopted.

AUSTRALASIAN MEDICAL CONGRESS.—ADELAIDE SESSION, 1905.

REVENUE ACCOUNT.

Expenditure.				Revenue.			
		£	s. d.			£	s. d.
Expenses of Congress		32	15 0	Subscriptions—388 members @ £1 1s ..		407	8 0
Postages		32	7 10	Remittance from Hobart Congress ..		138	16 5
Advertising		14	17 6	Interest, Savings Bank		20	9 7
Printing		116	16 9	Sale of Desk		10	0 0
Sundries		2	13 0	Sale of Copy of Transactions		1	0 0
Exchanges		1	17 9				
State Expenses		15	0 1				
Typewriting		4	12 8				
Cost of Desk		14	2 0				
Assistance, Secretary		5	4 11				
Shorthand Reports		9	16 0				
Public Lectures		7	15 5				
Sectional Expenses		9	0 1				
Honorarium (C. R. Hodge)		15	15 0				
Remitted to Melbourne—							
June, 1906	£100	0 0					
December, 1907	195	0 0					
			295 0 0				
			<u>£577 14 0</u>				<u>£577 14 0</u>

(Sig.)

Audited and found correct,
THO. C. WALKER, F.I.A.S.A., Public Accountant.W. J. HAYWARD, Hon. Treasurer.
Adelaide, December 10th. 1907

AMALGAMATION OF ASSOCIATIONS.

The report of the Committee appointed to consider the amalgamation of medical organisations in Australia and New Zealand disclosed a state of disinclination on the part of most bodies to entertain the idea.

The report was received.

The motion of Dr. R. ARTHUR (Sydney)—“That a deputation from this Congress wait upon the Prime Minister and request that a Royal Commission be appointed to enquire into the question of the possibility of the permanent colonisation of tropical Australia by the Anglo-Saxon and other white races”—was referred to the section of Public Health and State Medicine with a request to report to the final General Meeting.

CONTRACT PRACTICE.

Dr. CLARENCE READ (N.S.W.), on behalf of Drs. A. Dick and A. Palmer, gave notices of motion for consideration at Wednesday's meeting.

INAUGURAL MEETING.

In the evening, from 7.30 to 8 o'clock, an organ recital was given by Dr. Price, City Organist.

The PRESIDENT said that his first duty was to request his Excellency the Governor to be so kind as to declare open this the Eighth Session of the Australasian Medical Congress.

Sir T. GIBSON-CARMICHAEL, Governor of Victoria, who was received with applause, said: Professor Allen, Ladies and Gentlemen, in declaring this Congress open, it is, I believe, my duty to say a few words of welcome to the members of that Congress on their coming to this State in which I have the honor to represent His Majesty. My words shall not be many,

but I trust that the members of the Congress will not think that because I do not say much I do not feel very warmly towards you. There are, no doubt, numerous reasons why we should welcome you to this State. One of them (perhaps you may think it a selfish one) is that by your congress I think you give to everyone an opportunity of realising how much science has done, and is doing, for the good of mankind. I have not been long in Victoria, so perhaps I am not entitled to speak; but I do not suppose there are very many people in Victoria who are learned in medical matters. I, at any rate, am one upon whom you would look as being very ignorant. Probably there are not a very large number of the inhabitants of this State who would even understand the papers which you will read in your various sections, and I feel sure there are not a very large number who could take a very intelligent part in discussing those papers, but for all that, I should think there are not a few who would realise how much is due to science of what makes life easier and happier for us. There seems to me nothing more striking in modern times, in the life of the present day, than the way in which the sum of human knowledge is being advanced daily, by men like, I dare say, all the members of your congress, who are working patiently at scientific research and observation. Nothing, it seems to me, is more striking than that, unless it be that there are many men, who have no pretensions to being scientific men, who are applying that knowledge gained by science to the common everyday things of life, and it appears to me, looking to the future, that there is nothing more hopeful than the feeling that that co-operation of those who are advancing science, and those who are applying it, is daily growing closer and closer in every branch of industry. In every department of

human endeavour we find the same thing. The practical application of science is the only way to attain progress. We gladly recognise that this is so, and that those who have to do the work, the common everyday work of this world, are realising that more and more clearly. In nothing is that more obvious than in that which has to do with health, whether mental or physical. Politicians and social reformers may scheme and try to do much—and I trust they may succeed in doing much—but their successes can only be assured if they base them on the facts which have been learnt by the patient observation of men of science. It appears to me that you who are members of this congress must find a pleasure in recognising that men like yourselves, engaged in research, that anyone in fact who thinks at all, is daily turning more and more to the belief that it is by such guidance that progress can still be ensured to our race. It seems to me that that is also a reason why you should from time to time hold congresses like this, where you are able to put into words, which can more or less be grasped by unscientific people, what the results of your observations are. At any rate that, I think, is a reason why men like myself, who have no scientific attainment, but who do wish to see progress in our midst, should welcome you when you come to hold your congress here.

The PRESIDENT now called upon Mr. SWINBURNE, representing the Premier and the Cabinet of Victoria, who said:—Your Excellency, Mr. President, Ladies and Gentlemen, I can assure you it gives me very great pleasure on behalf of the Government of Victoria, to welcome the delegates from the various parts of Australia and adjacent lands to the Medical Congress. I must express regret at the absence of the Premier, who is unavoidably detained, and also regret that you are thereby unable to listen to one of his characteristic speeches. The Government wishes to express its great sympathy with the developments in medical science, and feels anxious to do everything in its power to promote research in connection with medical education and surgical science. It should do a great deal more than it has in the past in the way of providing funds for research, and the establishment of laboratories worthy of the State and Commonwealth.

The LORD MAYOR (Sir Henry Weedon), on behalf of the citizens, extended a most cordial and hearty welcome to the members of the Congress, and trusted that the interchange of ideas would conduce to the betterment of humanity. He hoped that our distinguished visitors would carry away with them only the pleasantest recollections on their return, after a sojourn in this city.

The PRESIDENT then delivered his address. (See page 579.)

Dr. J. THOMSON (Brisbane) said the President had hinted at the honour done to him by the profession in electing him to the presidential chair; but they would agree with him that in the services rendered to-night in his address, learned, brilliant, graceful, he had refunded, and with interest, the high compliment paid him. Custom had imposed a tax upon the occupant of that chair, the tax of the President's address and all past Presidents but one had paid that tax. It would be utterly absurd of him to attempt to review this oration, this great intellectual, scientific, and practical treat of the conference, but there was plenty in it for hours of study, and practical suggestions that would be taken into our daily life. He had to congratulate the medical profession in Victoria for this record attendance of about 750 members; the citizens of Melbourne for their University and Medical School; and those workers whose strenuous efforts had given those learned institu-

tions the renown they now enjoyed, and in the front rank of those names he placed the name of Professor Allen. The time would come when the labours of this Congress would be but a memory, but the work that Professor Allen had done; his great museum; his loyal devotion to his medical school—these were already matters of academic history, and were as imperishable as the University itself. Your Excellency, I am going to ask you to invite this vast audience to tender Professor Allen a very hearty vote of thanks for his very excellent address.

The vote of thanks was carried with great acclamation. Professor ALLEN responded to the vote of thanks, and called upon Professor ANDERSON STUART, Dean of the Faculty of Medicine in the Sydney University, who, in a felicitous speech moved, with great cordiality, that a hearty vote of thanks be tendered to Sir Thomas Gibson-Carmichael for his kindness in attending the meeting.

The PRESIDENT put the vote to the meeting, and it was carried with great unanimity and applause. His Excellency having responded, the meeting closed.

General Meeting.—Discussion on Hospitals.

OCTOBER 21ST.

WILSON HALL, WEDNESDAY MORNING.

The PRESIDENT on rising read the following letter in regard to late Dr. Fitzgerald:—"Will you accept yourself as President, and for all the members of Congress, my sister's and my own heartfelt thanks for your kind expressions in regard to the death of my late dear father."

Read letter from St. Vincent's Hospital, conveying compliments to the members of Congress, and inviting them to inspect the hospital if desired during the week.

Letter from Mr. John McLellan inviting members of the Congress to view his exhibition of physical culture in the Melbourne Town Hall, on Thursday, the 29th instant, the display to be given by the Girls' Guild.

Requested all inter-State visitors and members of Congress who are remaining in town over the V.R.C. meetings, to notify the Secretary of the V.R.C., who will be pleased to hand them invitations for themselves and families to all the V.R.C. meetings.

Notified—That the dinner in the evening was a private function, and that consequently there would be no official dress in the military services represented.

The PRESIDENT also called attention of the members to the interesting exhibition in the medical school, pointing out the great kindness shown by the many firms in placing there for inspection, the many thousands of pounds' worth of valuable and interesting articles, forming a conference museum on a scale never before attempted, and urged on members not to miss the opportunity of seeing it.

Letter read from the Women's Christian Temperance Association, asking that Congress would, if possible, make some reference to the subject of Temperance.

GENERAL BUSINESS.

The PRESIDENT called on Dr. Moore, as convenor of the committee, to bring before the meeting the subject of the Relation of the Medical Profession to Public Hospitals.

Dr. MOORE said that he found himself in a more prominent position than he cared to occupy, and would be as brief as possible. He trusted that members would realise the importance of the discussion, as it probably means the taking up of an entirely new work by the profession. He then read the report of the committee, embracing the following proposals:—

1. "That in the opinion of this Congress no payment whatever should be taken from patients treated

at hospitals maintained by the donations of the charitable and by Government grants.

2. "That, except in cases of accident or emergency, every patient should, before being treated, be required to sign a declaration of inability to pay for medical attendance, and that as far as possible all patients seeking treatment should bring a recommendation from their own medical attendant, whether lodge or other."

3. "That this Congress affirms the foregoing resolutions as the foundation of any real reform in the present abuse of hospitals, and is of opinion that other hospital accommodation would extend naturally to the inclusion of all those able to pay for medical treatment."

4. "That this Congress is of opinion that it would be a great gain to the community if the executive body were established to—

- (a) Administer the Government grant.
- (b) Classify hospitals.
- (c) Prevent overlapping of hospital work.
- (d) Insist on enquiry for the prevention of imposition.
- (e) Insist on the adoption of uniform methods of keeping accounts.
- (f) Close unnecessary hospitals.
- (g) Prevent the establishment of unnecessary hospitals.
- (h) Foster economy in hospital administration.
- (i) Promote the transfer of patients from one class of hospital to another.

The first resolution was moved by Dr. R. Worrall (Sydney), and seconded by Dr. H. Swift (Adelaide), and provoked a lengthy and animated discussion, speeches being made by Drs. Worrall, Swift, Doyle (Newcastle), Thomson (Brisbane), Mason (New Zealand), Barrett (Victoria), Robertson (Auckland), Ramsay (Launceston), Holland (West Australia), Taylor (Outtrim), Butler (Hobart), Read, and Nash (New South Wales).

The motion on being put to the Congress was carried with only one dissenter.

The second resolution was moved by Dr. Butler (Hobart), and seconded by Dr. Clarence Read.

This motion, on being put to the meeting, was carried unanimously.

The third resolution was moved by Dr. John Thomson (Brisbane), and seconded by Dr. W. Austey Giles (Adelaide), and was spoken to by Drs. Lockhart, Gibson, Argyle, and Moore, and on being put to the meeting was carried unanimously, a verbal alteration being made by the insertion of the words "or surgical" before the word "treatment" so as to read: All those able to pay for medical or surgical treatment.

The fourth resolution (in the absence of Dr. Chisholm), was moved by Dr. Syme, and seconded by Dr. Cuscaden, and on being put to the meeting was carried.

CONTRACT-PRACTICE ABUSES.

Dr. PALMER (Sydney), in the absence of Dr. A. Dick, moved the following resolutions:—

1. That no medical man should pass for admission into any friendly society, lodge, club, or association for professional attendance at contract rates of remuneration. any person whose income from all sources, together with that of his wife (if any) exceeds the sum of £4 per week, that is, £208 per annum. Further, no medical man should attend professionally at contract rates any member of any of the above-mentioned organisations, whose income from all sources, together with that of his wife (if any), exceeds the sum of £6 per week, that is, £312 per annum.

2. That the General Secretary communicate with all the Medical Associations throughout Australasia, in order to bring into operation the foregoing resolution.

3. That, owing to the importance of this subject to the medical profession, the Presidents of future congresses shall present brief reports to Congress upon the state and conditions of contract-practice, and that at future Congresses there shall be a section for the consideration of such Presidential report (and similar subjects), and that the Chairman of such section be the General Secretary of Congress.

After a brief discussion the resolutions were unanimously passed, with the insertion in No. 1 (at the suggestion of Dr. Doyle) of the words "or private list" after the word "Association," in the first portion of the resolution, and also, in clause 3, an alteration was agreed to, making the clause to read—"That, owing to the importance of the subject to the medical profession, the Executive Committee of the next Congress shall be requested to present a report upon the state and condition of contract practice."

The PRESIDENT explained that there would be a committee appointed to thrash out all minor details, and to draw up reports for next Congress.

Also that these different motions would be passed on to the various Medical Associations and organisations throughout Australasia, asking them to take whatever action may be deemed necessary in the interim.

MASONIC HALL,—FRIDAY AFTERNOON.

OCTOBER 23RD.

DISCUSSION ON SYPHILIS.

The PRESIDENT (Professor Allen), in opening the discussion, said that he had been asked to open the proceedings by giving a short paper on the subject. He considered that syphilis was much more prevalent than was usually recognised. Our methods of diagnosis left much to be desired. The usual statement of "No history of syphilis" was worse than useless. He would consider the subject especially from the pathological point of view. The great results of syphilis were to be found in (1) The arterial walls: atheroma in persons with low blood-tension and small left ventricle was always syphilitic; (2) widespread fibrosis of organs, liver, spleen, kidneys, with profound alteration in the general metabolism and lowered resistance to disease; (3) serous coats of heart, lungs, liver, spleen, etc., causing linear opacities. In 1904 he had taken 100 consecutive autopsies made by himself at the Melbourne Hospital. Of these, 34 showed clear signs of syphilis, 19 doubtful signs, and 1 suspicious. Again, this year he had taken a series of 100 consecutive cases. Of these, 32 were undoubtedly syphilitic, and 30 doubtfully so. These cases, however, could not be considered as truly representative of hospital cases, and much less so of the community at large. Aortic aneurism was usually due to syphilis, and was thus relatively common in women in Victoria. During 1906 there had been 31 deaths in females and 57 in males, a larger proportion than was usually realised. Aortic regurgitation, many cases of mitral obstruction, progressive myocarditis, coronary atheroma, etc., were syphilitic in origin. A syphilitic interstitial pneumonia was seen often with tuberculosis. Pernicious anæmia was often essentially syphilitic. Pancreatic diabetes might be caused by a fibrosis or a more local cicatricial atrophy. Malignant tumours which disappear were usually syphilitic; and syphilis was often the forerunner of malignancy in the stomach, tongue, larynx, testes, or breast. After describing the condition found in placental syphilis, he said that where this was discovered the mother was always affected, and that the duty of the attendant was to treat father, mother and child. In his opinion paternal conceptional infection of the ovum was not impossible. There were probably other phases

in the life-history of the spirochæta. From the public health point of view the loss of life from miscarriages, early marasmus, etc., was distressing. The majority of cases of death in children, especially from seemingly trivial causes, were due to inherited syphilis. The consideration of the whole question was of the utmost importance to the well-being of the individual and to the safety of the community.

Dr. G. E. RENNIE (of Sydney), in opening, said that they had discussed this subject in their section (Medicine) on Monday morning, and he had been instructed to bring before the meeting some conclusions at which they had arrived. As physicians, they were not prepared to accept the view that syphilis was such a prevalent cause of arteriosclerosis, but probably that other toxic causes were at work to produce arterial degeneration. As regards the nervous system, they were prepared to admit that certainly in the very large number of cases of chronic degenerative diseases syphilis was the most prevalent cause, and though not agreeing with the pathologists as to its prevalence, they all agreed that the disease was one of the worst—if not the most serious disease—that an individual could contract. The initial treatment should extend over at least two, and possibly three, years, with a subsequent course of six to eight weeks' treatment every year.

Dr. BRID discussed the question from a surgical point of view. Syphilitic cases bore surgical interference badly, and were notoriously bad subjects for anæsthesia. Their hearts were usually small and ill-developed; even if large, they invariably showed a very poor heart shadow with the fluorescent screen. Anæmia in middle age was always either syphilitic or due to malignant disease. Syphilis had been aptly called the great chronic devitaliser. Syphilis was an ever-hazy cloud on the horizon of diagnosis. Time had only strengthened his opinion, as expressed in Adelaide three years ago, of the prevalence and seriousness of this disease.

Dr. FLASHMAN, of Sydney, stated that when dealing with this subject in section (Neurology) he had been requested to present the suggestion that a committee be formed and appointed by this Congress for the purpose of taking some practical steps leading towards something definite being done towards a diminution of this evil, and proposed—"That this section recommends the General Congress to appoint a committee to investigate, tabulate, and report facts with regard to syphilis which such committee may obtain, the committee to report to next meeting of Congress, but that they be given authority to publish the report prior to Congress if they think such a course advisable," and suggesting also that the committee should consist of men who would view the matter from both the pathological and sociological sides of the question.

Dr. MASON (New Zealand) was very thankful that the form of resolution sent on by the section of Public Health did not require him to decide in the matter of prevalence of this disease. The point of view taken up by them was—What can be done in order to lessen what we all deem to be a very formidable disease? One of the resolutions presented by his section was—"That in the opinion of the section of Public Health and State Medicine, syphilis should be placed on the list of notifiable diseases," and he thought that suitable hospitals should be provided for the treatment of this disease. Another resolution forwarded by his section was—"That legislation be enacted whereby persons from overseas suffering from active infective syphilis will be liable to quarantine restrictions." He also thought that, following the example of older countries, we should be at least doing our duty if we pointed out the remedy,

or the best means of preventing the acquirement of this disease, particularly amongst our army and navy.

Dr. LOCKHART GIBSON (Queensland), who represented the Eye section, stated that no resolutions had been passed by them, but that he had been entrusted to present their views generally, and as far as he could interpret them they amply bore out all the remarks in the President's paper, also the remarks of Dr. Bird in his paper on "Abdominal Syphilis."

Dr. McMURRAY, who followed, gave some very interesting figures relative to the percentages of syphilitic patients in the various squadrons of the British navy, which read as follows:—Per 1000 for the year 1906: Home station, 138.13; Channel fleet, 81.15; Atlantic fleet, 110.91; Mediterranean fleet, 97.84; North American, 107.3; China station, 107.8; East Indies, 138.74; Cape of Good Hope, 138.04; Australian, 214.5.

Dr. P. B. BENNIE said he had the honour to read a paper before the section for Diseases in Children, and had prepared an extract from that paper. He stated that fully 25 per cent. of the sick children in Melbourne are tainted with syphilis, and 10 per cent. of the total number of children in Melbourne are syphilitised, consequently their chance of dying are seven times greater than that of healthy children. At the meeting of this section it was resolved to recommend—"That a committee be formed to draw up a short statement, carefully and judiciously worded, of the plain and honest truth on this matter for distribution amongst young men; this statement to be of an authoritative character and signed by the leaders of the profession; to be printed in the form of a circular, and in such numbers as may be decided, and that the expense of printing should be defrayed by the medical profession." He did not think that legislation would do any good.

Dr. WEBSTER (Launceston) considered that alcoholism had a great deal to do with this matter, and thought that solicitation of a common kind should be restricted by law.

Dr. JACKSON (Brisbane) thought that the operation of a Contagious Diseases Act would much lessen this evil.

Dr. JEFFERIS TURNER (Brisbane), in referring to the remarks of Dr. Bennie, said that he thought it our plain duty to warn the bulk of mankind of the gravity of the disease, and particularly the younger members of the community, to whom the risk was greatest.

Dr. CROWTHER (Tasmania) also spoke to the subject.

Dr. ANDREW (Hawthorn) thought that some means ought to be arranged whereby correct returns of deaths by syphilis could be recorded, so that the prevalence or otherwise of the disease might be more correctly estimated.

Dr. BARRETT stated that the resolution he had been requested to move by the Syphilis Committee read as follows:—"That syphilis is responsible for an enormous amount of injury to mankind, and restrictive and remedial measures against it should receive immediate attention." The lessons he had learnt during this interesting discussion show that syphilis may exist, and does exist, in a great many cases without a jot of clinical evidence whatever. The whole subject ought to be thoroughly discussed in a straightforward manner with the public in order to arrive at some measures for the abatement of this greatest reproach on our civilisation.

Dr. DOYLE (N.S.W.) had listened to the speeches of the specialists, and said that his experience of 16 years in one of our largest seaboard towns led him to the

conclusion that the statistics supplied by Professor Allen and others are quite in accord with his own practice, and he supported the proposal that immediate and remedial measures should be directed against this disease.

Dr. ATKINSON WOOD (Victoria) gave the result of a search through the books of the Children's Wospital, a proportion of one death out of every seven being attributable to this disease, also citing some interesting experiences at the Sick Children's Hospital. He produced a card which he suggested should be made use of by the profession, having designed it with a view to facilitate references for the guidance of mothers. He considered the profession ought to be very honest in dealing with this subject. Spell it with a large S if you like, but be plain and honest in the matter.

Professor ALLEN, in rising to put the motion of Dr. Barrett, said that he thought it would be a great mistake if we were to quite agree with Dr. Bennie that syphilitics should never marry. He thought that with proper treatment, delay, and care, there was no reason why a man who had had syphilis should not be a good husband and a good father. He agreed with Dr. Webster that alcohol had a great connection with syphilis. He thought we should not allow Dr. Mason to lead us into any breach of medical etiquette in the matter of confidence between physician and client. These three things might be borne in mind—Syphilitics may marry; alcohol is a great friend to syphilis; and that in the matter of confidences every medical man must himself be the judge of what he ought to reveal and of what he ought not to divulge.

The motion of Dr. Barrett was put and carried unanimously.

The resolutions or suggestions by the various sections were put to the meeting, the President explaining that they would be attended to at once by the incoming Executive Committee, who would report from time to time, and finally to the next Conference.

Meeting adjourned until Saturday morning.

MASONIC HALL—SATURDAY MORNING.

FINAL MEETING.

The PRESIDENT read a letter from Miss Clarke conveying thanks and appreciation for the sympathy expressed by Congress with her mother Jane Lady Clarke.

The PRESIDENT called upon Dr. Arthur (Sydney) to bring the report concerning tropical Australia before the Congress.

Dr. ARTHUR stated that the section of Public Health had decided on the following resolution being presented to Congress, and he had much pleasure in moving—"That the Congress be asked to appoint a deputation to wait upon the Prime Minister and request that a Royal Commission be appointed to enquire into the possibility of permanent colonisation of tropical Australia by the Anglo-Saxon and other white races." The deputation to consist of Drs. Arthur (N.S.W.), J. W. Barrett (Vic.), Ramsay-Smith (S.A.), Elkington (Tas.), Ahearne (Q.), Pope-Seed (W.A.), and C. W. Reid (N.S.W.).

The statistical committee of Public Health and State Medicine moved the following resolution:—"That the Congress be informed that this section is of opinion that there is evidence to show the prevalence of physical defects amongst school children, interfering with their health and education, and it is therefore recommended that the responsible authorities in New Zealand and in those States which have not instituted a system of medical inspection should be urged to adopt some

uniform system of physical examination of all school children, carried out under the direction of, and where necessary by, medical experts."

Dr. CARTY SALMON thought that real results would not be attained by the mere passing of resolutions, what was needed was interviews and pressure brought to bear upon the respective Governments concerned.

Dr. ELKINGTON, representing the section of Public Health, stated that his section had decided to recommend to the Congress—"That, as recommended to previous congresses, there is a pressing necessity for regular annual conferences between the professional heads of the State departments of Public Health in Australasia, in order to secure in the public interests better co-ordination of hygienic effort, with better co-operation in its application."

The Eye and Ear section desired to urge on Congress—"The extreme importance of the medical inspection and examination of school children, and especially of their vision and hearing."

The Naval and Military section presented a resolution—"That in the opinion of this section it is in the highest degree advisable that all naval and military boards, or councils of defence, should have an expert medical member."

The section of Diseases of the Skin recommended to Congress—"That the various health authorities and hospital committees be recommended to take the necessary steps to ensure that adequate protection is provided for X-ray workers at the hospitals throughout the Commonwealth." "That this Congress strongly impresses on the profession the desirability of consulting only qualified medical men for its X-ray work."

These reports and suggestions from the various sections were unanimously adopted.

A general resolution was also agreed to in connection with the debate on abuses of hospitals, viz:—"That the resolution in reference to the abuse of hospitals be forwarded to all the recognised medical societies in all of the States and in New Zealand, and that these be asked to take whatever action such societies may deem advisable." "That a committee be formed to act with the next executive committee in dealing with the question of hospital management, and to report through that executive committee to the next meeting of Congress, such committee to consist of Drs. Worrall and Blackburn (N.S.W.), Lockhart Gibson and McLean (Q.), Hayward, Cavanagh Mainwaring (S.A.), Butler and Pardy (Tas.), Lewers, Moore and Barrett (Vic.), Seed, Holland and Saw (W.A.), Robertson and Ewart (N.Z.)."

Dr. ABBOTT, President of the New South Wales Branch of the British Medical Association, said that he had the honour of moving the resolution—"That the next Australian Medical Congress be held in Sydney in the year 1911." As President of the New South Wales Branch of the British Medical Association he could assure Congress, on behalf of the profession, that if the resolution were adopted New South Wales would give a hearty welcome to all the visitors from other parts of Australasia. He felt very much the kindly manner in which they had all been enterained during their stay in Melbourne, and assured Congress that they all went away with very pleasant memories indeed.

Professor ANDERSON STEWART moved—"That Dr. Frank Antill Pockley, of Sydney, be the President of the next Conference."

These resolutions were put to the meeting and carried with enthusiasm.

Dr. POCKLEY rose and thanked the meeting in the warmest terms for this, the highest honour they could

confer on him, in being made to feel that he had the trust and confidence of his colleagues. It was particularly gratifying to him that the motion had been moved by Professor Anderson Stuart, with whom he had been associated for more than 30 years, ever since he was a pupil under that distinguished gentleman in Edinburgh. He promised the Congress that they could be assured the medical profession in Sydney would do its very best to make the next Congress a success, though he hardly hoped to be able to emulate the magnificent reception that had been given in Melbourne.

Very unanimous and cordial votes of thanks were accorded to His Excellency the Governor and Lady Carmichael, the Lieutenant-Governor and Lady Madden, the Minister of Defence, Premier, and Government of Victoria, the Postal, Telegraph, Railway Departments, the Chancellor and Council of the Melbourne University, the Director of the Conservatorium of Music, the Melbourne Cricket Club, and others who had in any way contributed to the success of the Congress.

Thanks were also expressed for the notice taken by the Chapter of St. Paul's Cathedral, St. Patrick's Cathedral, and the Scots Church, Collins-street, in rendering special Congress services on Sunday the 18th instant, and to the Council of Churches for their cordial greeting and good wishes.

Professor STIRLING moved that the warmest thanks be tendered to the Management and Secretary (Mr. Andrews) of the Melbourne Hospital, for the use of the Board room, and thanks also the other kindred institutions which invited inspection by the members of the Congress.

Carried.

Dr. CAHILL remarked that before moving the motion entrusted to him he wished to thank the President and Executive Committee for the very intellectual and scientific treat provided for us during the past week, and also for the hospitality of the profession generally during our stay. He now moved—"That the Congress offers its warmest thanks to the press for the full reports of its meetings, and for the most excellent support given to the Session."

Carried unanimously.

The PRESIDENT also warmly supported this appreciation.

Dr. BUTLER moved that the Congress express its appreciation of the excellent preparations made by the various committees, and for the work done by the General Secretary and the associated Secretaries, and for the manner in which every thing had been carried out.

The PRESIDENT said it gave him very great pleasure to convey the vote of thanks to the different committees, and took the opportunity of thanking the Treasurer, Secretary, and Associated Secretaries for the accurate and thorough manner in which all their work had been carried out, and carried out, and he felt grateful to all who had co-operated with him.

Colonel THOMSON rose to propose a hearty vote of thanks to the President. He stated there was a distinguished countryman of his who had one time written a book, in which appeared a character—Domine Sampson—who was wont to exclaim "prodigious" when he felt overwhelmed, and he could safely say that the work of the President during Congress, and before it, could only be characterised as "prodigious." Nor would he care to forget someone else besides the President—there was the Lady President, who, with her many charms was so able to assist our President in

the work he had before him during the Session. He coupled the name of Mrs. Allen with that of the President, and called for a hearty vote of thanks, which was responded to by the gathering rising *en masse* and greeting the motion with cheers.

The PRESIDENT feelingly responded, and declared the eighth Session of the Congress closed.

Proceedings of Sections.

MEDICINE.

President: G. E. RENNIE, M.D., F.R.C.P., Sydney. The meetings of this section have been well attended. On Tuesday, October 20th, after delivery of the presidential address by Dr. G. E. Rennie in full Congress, the subject of syphilis was discussed from the point of view of the clinical physician. At the same meeting a valuable practical paper on "intra-gastric methods in the diagnosis of disease of the stomach" was read by Dr. J. F. Wilkinson (Victoria.) On the afternoon of the same day, a short sitting was held at which Dr. Nihill (Victoria) read a paper on "Some clinical distinctions in chronic Bright's disease," and Dr. Creed (New South Wales) contributed a paper concerning Oil of Sandalwood. On Thursday, October 22nd, conjoint meeting was held with the section of Pathology and Bacteriology to consider the subject of tuberculosis. Many important and valuable papers were read, and an interesting practical discussion followed. Dr. Julian Smith (Melbourne) gave a short but comprehensive review of the methods and usefulness of the estimation of tubercular opsonins. A full discussion followed, and the general feeling seemed to be that tuberculin was of undoubted therapeutical value in pulmonary consumption, but that the opsonic index was not now required to determine the amount or time of its dosage. Great interest attached to the fact that contributions were received from the Directors of sanatoria for tuberculosis in New South Wales, South Australia, and Victoria, and that a special contribution on the same subject was received from Dr. Grattan Guinness, of Auckland, New Zealand. An important paper setting forth the opinions of a clinical physician was contributed by Dr. A. E. Mills (Sydney). A full review of the usefulness of Calmette's ophthalmoreaction was brought forward by Dr. Sinclair Gillies (Sydney), and a most valuable paper on tuberculin and sanatorium treatment was read by Dr. McIntyre Sinclair, of the Wentworth Falls Sanatorium, New South Wales.

On the afternoon of Thursday, October 22nd, an important conjoint meeting with the section of Surgery, under the presidency of Dr. B. Poulton, was held to consider the subject of anaesthesia, general, local, and intraspinal. This subject produced a very crowded meeting. Dr. Embley (Victoria) brought forward an important contribution to pharmacological work upon the effect of general anaesthetics. A short practical paper on "Cases unsuitable for chloroform general anaesthesia" was read by Dr. Tate Sutherland (Victoria), and a full and valuable review of spinal anaesthesia was brought forward by Dr. Zwar (Victoria). A short and practical paper on local anaesthesia was also contributed by Dr. Sydney Patterson (Victoria.) Dr. J. W. Springthorpe (Victoria) presented a short statement, and showed diagrams of the method of administering somniform in dental work. In the discussion which followed, Dr. Crowther (Tasmania), Dr. Hornabrook (South Australia), Dr. Jackson (Queensland), Drs. Moore, Syme, and Dunhill (Victoria) and several others took part.

Late in the afternoon of the same day a small meeting was held to consider papers on various subjects. Dr.

J. Jamieson (Victoria) read a paper on "Pneumothorax, and Dr. Springthorpe brought forward much important work concerning statistics and the feeding of typhoid patients.

On Friday, October 23rd, a sectional meeting was held to consider the subject of Anæmia. An important paper was contributed by Dr. R. A. O'Brien (Queensland) on Anæmia in malaria and ankylostomiasis. A short paper was also presented by Dr. A. E. R. White (Victoria) on "A case of pernicious anæmia." Dr. Springthorpe brought forward notes of cases on "Splenic anæmia and the forms of anæmia seen in the wards of the Melbourne Hospital." The President and Dr. J. F. Wilkinson took part in the discussion which followed. Dr. Creed, of Sydney, considered the subject of the treatment of diabetes, and the meeting closed with a paper from Dr. Springthorpe, reviewing the statistics concerning blood pressure in disease.

SURGERY.

President: Dr. B. POULTON (Adelaide.)

TUESDAY, OCTOBER 20.—The morning was occupied with a discussion on the "Surgical Diseases of the Bile Passages and Pancreas," papers being contributed by Drs. W. Anstey Giles (S.A.), H. Critchley Hinder (N.S.W.), and F. Hinricksen (Q.). Others who took part in the discussion were Drs. Syme and Stirling. In the afternoon a conjoint session was held with the section of Obstetrics and Gynæcology, the President of the latter section being in the chair. A discussion on the surgical treatment of "Septic Peritonitis" was opened by Drs. Chisholm (N.S.W.) and R. B. Duncan (Vic.), and an exceedingly interesting and important expression of opinion was elicited from many members of those sections.

THURSDAY, OCTOBER 22.—The Presidential address in this section was delivered by Dr. POULTON in the Wilson Hall, before the full Congress, his subject being "The Surgery of Tuberculosis." Subsequently a short discussion took place on "The Surgery of Non-malignant Disease of the Stomach." Dr. T. P. Dunhill (Vic.) contributed an excellent paper on "The Surgical Treatment of Exophthalmic Goitre," and Dr. H. L. Maitland (N.S.W.) one on "Uses of the Cystoscope in Obscure Renal Disease." In the afternoon a conjoint meeting was held with the section of Medicine. Subsequently papers were read by Dr. R. B. Duncan (Vic.) on "The Preparation and After-treatment of Operations"; by F. Hinricksen (Q.) on "Bier's Hyperæmia in Acute Inflammation"; and by Dr. R. Steer Bowker (N.S.W.) on "The Operative Treatment of Hernia."

FRIDAY, OCTOBER 23.—Drs. Kilvington (Vic.) and Newland (S.A.) opened a discussion on "The Surgery of Nerves and Paralyzes," and Drs. R. B. Duncan and H. M. O'Hara (Vic.) contributed papers on the "Gasserian Ganglion." Papers were also contributed by Drs. E. H. Jackson (Q.) on "The Association between Dental Caries and Appendicitis," and by Dr. A. Morris (Vic.) on "Renal Calculus."

OBSTETRICS AND GYNÆCOLOGY.

President: E. T. THRING, F.R.C.S. (Sydney).

The Presidential address took the form of a short and lucid exposition of the principles that should guide the practice of Gynæcology and Obstetrics, involving a condemnation of the dictum that would limit the field of the gynæcologist to the lower part of the abdominal cavity. Abdominal surgery generally should come within the scope of the gynæcologist.

Dr. J. A. G. Hamilton (S.A.) opened a discussion on "Fibroid Tumours of the Uterus" with a paper in

which he advocated the removal of all fibroids producing symptoms regardless of the age of the patient, and of all fibroids in women about or after the menopause when diagnosed. Small tumours in young women anxious for maternity, though not calling for immediate removal, required careful watching. Supravaginal hysterectomy was to be preferred to panhysterectomy, and the scope of myomectomy was limited. The preservation of healthy ovarian tissue was expedient. Dr. Hamilton's views received general, though not complete support, in a well-sustained discussion.

Dr. George Horne (Vic.) contributed a thoughtful study of the "Relation between Fibromyomata, Sterility, and Pregnancy," the interest centring in an original theory of the origin of these growths.

Eminently practical and terse was the paper by Dr. Ralph Worrall (N.S.W.) on the "Causes, Results and Treatment—Immediate and Remote—of Injuries of the Genital Tract," which were summarised as "largely dependent upon deficiency in skill, training and remuneration," and to these must be added the contributing factor of civilisation in the broad sense, with its enervating influences. "Midwifery," said Dr. Worrall, "is becoming a more pathological process than formerly, and demands higher skill and sounder training on the part of the general practitioner, with a corresponding increase in his remuneration for this class of work." The surgical treatment of puerperal lesions was clearly defined, and the dangers of neglect strongly emphasised. Dr. Worrall's views were largely endorsed and applauded.

"Some Aspects of the Question of the Artificial Termination of Pregnancy" was the subject of a discussion introduced by Dr. Felix Meyer (Vic.), who said that apart from its obstetrical interest it was a question of important social and ethical bearing, and one to be approached without bias or predisposition to ideas based on the teaching of any particular school. Complications of pregnancy with tuberculosis, cardiac disease, grave manifestations of toxæmia, etc., were reviewed from a personal hospital and private experience of 5000 cases, and while Dr. Meyer considered that the danger to maternal life was in the majority of complications overstated, he could not escape the conclusion that from time to time conditions were found that demanded the termination of pregnancy for the preservation of the life of the mother. Increased attention on the part of the obstetrician to the pregnant woman with systematic and thorough urinalysis during gestation would, *inter alia*, lead to the recognition of the onset of toxæmia, and by early and appropriate treatment conserve the rights of the mother and the unborn child. The paper evoked a very full and interesting debate, the views expressed being in accordance with those of the paper. The main difference being in regard to the question of the induction of premature labour in contracted pelvis, some advocates of the procedure being opposed to Dr. Meyer's preference for Cæsarean section.

A paper introducing a discussion on the "Early Recognition and Treatment of Pelvic Infectious Processes in the Puerperium," by Dr. T. G. Wilson (S.A.), was read in his absence by Dr. Rothwell Adam. Excellent in matter and style, it was productive of valuable and instructive expansion by a number of speakers.

Among other contributions to the section were papers by Dr. W. T. Chenhall (N.S.W.) on "Actinomyces of the Female Generative Organs," "A Case of Anencephaly with Face Presentation," by Dr. Mary C. De Garis (Q.), and "Polypoid Endometritis," by Dr. Frank

A. Nyulasy (Vic.), the latter being illustrated by numerous lantern slides. It is hardly necessary to add that in Dr. Thring the section found a sympathetic and alert President, his summarising of the papers being masterly and illuminating.

ANATOMY, PHYSIOLOGY, AND PHARMACOLOGY.

President: Professor J. T. WILSON, M.B., C.M., Sydney.

TUESDAY, OCTOBER 20TH.—The presidential address in this section opened proceedings, after which various papers were read and discussed. Dr. A. A. Palmer (New South Wales) read a paper on "Hermaphroditism," and Dr. W. Ramsay Smith read a paper on the "Paroccapital Process."

In the afternoon, Dr. H. G. Chapman (New South Wales) read a series of papers: "The Milk-Coagulating Properties of the Pancreatic Juice"; "The Action of Strychnine," and "The Acidity of Milk."

THURSDAY, OCTOBER 22ND.—On this day this section divided itself into two sub-sections of Anatomy and Physiology respectively. In the former, the main business was the demonstration of Abdominal Topography by Professor Berry (Victoria), and the exhibition of lantern illustrations of sectional anatomy by Professors Wilson and Berry. In the Physiology sub-section, Professor Osborne (Victoria) read a paper on the "Elasticity of Rubber Balloons and Hollow Viscera." Dr. A. C. Rothera contributed a paper on "The Nitroprusside Test for Acetone," and Dr. Basil Kilvington (Victoria) one on the "Arrangement of Fibres in a Regenerated Nerve Trunk."

PATHOLOGY AND BACTERIOLOGY.

President: F. TIDSWELL, M.B., Ch.M., D.P.H., Sydney.

In the unavoidable absence of the President, Dr. Wilton Love (Queensland) acted as chairman.

TUESDAY, OCTOBER 20TH.—The morning session was devoted to a discussion on "Syphilis," various pathological specimens being shown in the museum by Professor Allen, who also contributed notes on the "Pathological Diagnosis of Syphilis," and upon the "Prevalence of Syphilis in Hospital Post-mortem Practice." Dr. Konrad Hiller (Victoria) gave a demonstration of "Serum Diagnosis of Syphilis."

In the afternoon, Dr. J. F. Flashman (N.S.W.) read a paper on "The Effects on the Blood and on Metabolism of large Doses of Thyroid Extract," and Dr. Constance Ellis (Vic.) read notes on "Endothelioma."

THURSDAY, OCTOBER 22ND.—In the morning a conjoint meeting was held with the section of Medicine on the subject of "Tuberculosis."

In the afternoon various papers were contributed, including two by Dr. R. J. Bull (Vic.) on "Colon-like Organisms in Melbourne Water Supply," and "Diphtheroid Bacilli." Dr. A. C. Rothera (Vic.) contributed a paper on the "Chemistry of Antibodies," and Dr. H. G. Chapman (N.S.W.) read for Professor Welsh a paper on "The Precipitin Reaction in General."

FRIDAY, OCTOBER 23RD.—This Session was devoted to the exhibition of specimens, especially of Parasitic Diseases, and Dr. R. A. O'Brien read a paper on "Ankylostomiasis and Tropical Diseases in Queensland."

PUBLIC HEALTH AND STATE MEDICINE.

President: J. M. MASON, M.D., Wellington, N.Z.

TUESDAY, OCTOBER 20TH.—This section opened with an address on "Syphilis" from the standpoint of preventive medicine by Dr. W. P. Norris, Chairman of the Board of Health. Many members took part in the

ensuing discussion, and the President was deputed to convey the following resolutions to the general meeting on "Syphilis":—

"That, in the opinion of the section of Public Health and State Medicine, Syphilis should be placed on the list of notifiable diseases."

"That legislation be enacted whereby persons from overseas, suffering from active infective Syphilis, will be liable to quarantine restrictions."

Dr. ARTHUR, of N.S.W., opened the discussion on the possibility of permanent white colonisation of tropical Australia, and placed before the section the resolution referred to it by the first general meeting of the Congress. The motion was agreed to, and recommended for adoption by the final general meeting (Q.V.)

At the afternoon session, papers were read by Dr. James Jamieson (Vic.) on "Periodicity in some Epidemic Diseases," and by Dr. W. Ramsay Smith (S.A.) on "Epidemic Cerebro-spinal Meningitis in South Australia," and a paper on "The Present Positions in Victoria of the Auxilliary Professions—Dentistry, Nursing, and Massage," was contributed by Dr. J. W. Springthorpe.

WEDNESDAY, OCTOBER 21ST.—The President (Dr. J. A. Mason) delivered his address on "Some side-lights on the Work of a Health Officer," before the full Congress.

THURSDAY, OCTOBER 22ND.—Most of Thursday morning's session was occupied with matters relating to the medical inspection of School Children. Mr. Frank Tate, Director of Education, was present by invitation. Dr. Gertrude Halley (Tas.) read a paper on "Methods, Aims, and Results of Medical Inspection of State School Children in Tasmania." Several members, including Drs. Elkington, Gault, Booth, and Norris took part, the latter discussing the matter from the standpoint of the Teacher. Dr. Elkington was deputed by the section to submit the following resolution to general Congress:—"That this section is of opinion that there is evidence to show the great prevalence of physical defects amongst school children, interfering with their education, and therefore recommends to the Education and Health Departments of the Commonwealth and New Zealand the adoption of some uniform system of physical examination of school children, carried out under the direction of, and where necessary, by medical experts, such system to apply to all schools, State and private."

Dr. MAINE POMARE (N.Z.) read a most interesting paper on "The Maori, Ancient Customs, Modern Ailments, and Sanitary Reform," which was considered by those who heard it, one of the most able and eloquent papers submitted to Congress.

Dr. BICKLE (S.A.) also contributed a paper on "Fatalities due to the Unrestricted Sale of Dangerous Drugs in Tabloid Form."

In the afternoon, Dr. J. Leger Ersen (Vic.) read a paper on "Sanitary Administration and Reform in Australia." He advocated a Commonwealth Public Health Department under the control of a Federal Minister of Health, and pleaded for adequately paid full-time Officers of Health, with special training. Dr. MARY BOOTH (N.S.W.) followed with a paper on "The Development of a Public Health Conscience," which she claimed must be attained by a gradual process of education of the people, beginning with the teaching of hygiene and kindred subjects in the schools.

FRIDAY, OCTOBER 23RD.—Dr. J. S. C. Elkington (Tas.) opened a discussion upon "The Necessity for better Co-operation between the State Health Authorities," urging regular annual conferences between the profession heads of the various Health Departments. A resolution embodying the above suggestion was

ordered to be submitted to the final general meeting of Congress.

Dr. JAMES BOOTH (Broken Hill) read a paper on "Municipal Milk Depots," urging their establishment. Drs. Sinclair, Norris, and the President took part in the discussion, and a motion was carried, expressing the opinion of the section that municipalities should be empowered to establish depots and clearing houses for the purpose of supervising the milk supply.

Other papers were presented to the section, but time did not allow of their being read or discussed.

EYE AND EAR SECTION.

President: J. LOCKHART GIBSON, M.D., C.M., Brisbane. The proceedings opened on Tuesday with a discussion by the President (Dr. LOCKHART GIBSON, Queensland), on the subject of "Syphilis in relation to Eye Diseases." Dr. GIBSON dealt with the matter exhaustively, and showed the manner in which syphilis may be manifested in eye conditions. He drew attention to its prevalence, and to the unique opportunities which eye practitioners have of marking its incidence, noting its progress and the effects of treatment.

The paper was warmly applauded, and elicited an interesting discussion, which revealed the practically unanimous opinion respecting the disease and the measures to be taken to deal with it. Dr. Gibson agreed to voice the feelings of the Section at the full Congress meeting.

Dr. J. P. RYAN (Victoria) read notes of cases of interstitial keratitis in relation to syphilis.

On Tuesday afternoon Dr. A. L. KENNY (Victoria) gave an account of the principal eye clinics of the world, with a large number of interesting lantern slides illustrating the various clinics he had seen.

On Wednesday afternoon an informal meeting of the section was held, at which Dr. LINDSAY MILLER (Tasmania) gave an account, with lantern illustrations, of the Egyptian Travelling Ophthalmic Hospitals.

On Thursday morning Dr. LINDSAY MILLER (Tasmania) read notes on a case of sarcoma of the iris, with pathological report.

Dr. ODILLO MAHER (N.S.W.) opened a discussion on the "Diagnosis, Prognosis, and Treatment of Glaucoma." The presentation of the subject was very lucid and coherent, and elicited again a practically unanimous opinion that the treatment of glaucoma in the main is iridectomy, done as early as possible. Dr. MAHER described an interesting and simple means of producing satisfactory cystoid cicatrix for use in advanced cases.

Dr. LOCKHART GIBSON (Q.) read a paper on "Operation for Entropion."

Dr. PABST (N.Z.) gave an account of an ingenious means of suturing the flap after cataract extraction.

The afternoon was devoted to the business of the Ear and Throat Section.

Dr. RUSSELL NOLAN (N.S.W.) read a paper on "Dissections of the Temporal Bone."

Dr. KENT HUGHES (Vic.) exhibited a number of cases of frontal sinus disease on which he had operated, and also showed a number of lantern slides of varying conditions of nose and throat.

A discussion followed on the treatment of diseases of the accessory sinus, in which most of the members took part.

Dr. GERTRUDE HALLEY (Tas.) gave an account of some test types which had been devised by Dr. Hogg and herself for testing school children. The test types consist of the letter "O" with a piece of the ring cut out in different positions. The examinee is required to indicate the position of the gap.

Dr. BRADY (N.S.W.) then introduced a discussion on

"The Treatment of Septal Deformity," and was congratulated by the section on the temperate and reasonably conservative attitude adopted. He suggested the limitation of the sub-mucous resection to those cases which could not readily be dealt with by the older method of excision, and pointed out the particular value of this new operation for deflections of the fore part of the cartilaginous septum.

During the morning, Dr. KENT HUGHES (Vic.) moved, and Dr. J. W. BARRETT (Vic.) seconded the following resolution:—"That this section recognises the vital importance of efficient and regular inspection of school children under the provision of qualified medical practitioners, especially as to the eyes, and the systematic testing of vision and hearing."

Dr. A. L. KENNY (Vic.) moved, and Dr. LOCKHART GIBSON (Q.) seconded a resolution of respect to Dr. Adam Politzer on the occasion of his retiring from the Professorship in the Vienna University, owing to his having reached the age limit.

Dr. S. A. EWING (Vic.) read a paper on the "Antro-Mental Mastoid Operation and its Limitations."

On Monday afternoon the section visited the new Eye and Ear Hospital, and thoroughly inspected that building. They also witnessed a demonstration of ophthalmic knife sharpening by Mr. Gallagher.

They also visited the St. Vincent's Hospital on other mornings, where Dr. A. L. KENNY (Vic.) gave a demonstration of eye cases, and Dr. E. RYAN (Vic.) gave a demonstration of Kuhnt's operation for trachoma.

The general feeling was expressed at the section that the general committee of the Sydney Congress might be respectfully asked to consider whether in making the arrangements of the Congress, all entertainments for men, at all events, should be discontinued in the day time. It is suggested that the sections should work from 10 a.m. to 1 p.m., and 2 p.m. to 4 p.m., then have afternoon tea and have an informal chat over the day's proceedings, and the entertainments for ladies and gentlemen should be reserved for the evening. In other words, the day should be devoted to work, and the evening to amusement. The work of the section was at times interfered with owing to the necessity of getting away to garden parties and the like. These entertainments, though in themselves very enjoyable, were sufficiently numerous to limit the time at the disposal of members.

NEUROLOGY AND PSYCHIATRY.

President: ERIC SINCLAIR, M.D. (Sydney.)

TUESDAY, OCTOBER 20TH.—The proceedings in this section were opened with a presidential address, the subject chosen being "Lunacy Administration in Australia." This was followed by a discussion on "Syphilis," in which several members took part, and Dr. Flashman was deputed to express the views of the section at the general discussion on Syphilis.

Papers were also contributed by Dr. Blackall (W.A.) on "Blood Pressure in the Insane," and by Dr. Kate Hogg (N.S.W.) on "The Relation of the Female Pelvic Organs to Insanity."

In the afternoon a conjoint meeting was held with the section for Diseases of Children at the Children's Hospital. (See under Diseases of Children.)

WEDNESDAY, OCTOBER 21ST.—Wednesday's session of this section was held at the Receiving House, Royal Park. Dr. Eric Sinclair read a paper on "Recent Hospital Extensions for the Acute Insane." Dr. E. Jones, Inspector-General, and Dr. G. C. Godfrey, Superintendent of the Receiving House, read papers dealing with statistics, and showed special cases, after which they showed members over the Receiving House and

the Acute Mental Hospital in course of erection. The members were later entertained at lunch, after which a visit was made to Dr. J. Y. Fishbourne's school for feeble-minded and backward children, at Moonee Ponds, where excellent work is being done.

THURSDAY, OCTOBER 22ND.—A paper on "The Treatment of the Insane in Private Practice" was read by Dr. W. Beattie Smith (Vic.). He advocated the division of the State into districts, each with its reception wards for observation and treatment of early cases, and also with some accommodation for the chronic harmless insane. He did not advocate the institution of separate licensed houses for early cases. A paper on the same subject by Dr. Chisholm Ross (N.S.W.) was in his absence read by Dr. Beattie Smith. Dr. Ross thought that borderland and early acute cases of mental disease should not under any circumstances be treated in their own homes.

Mr. T. Prout Webb, Master in Lunacy in Victoria, who was present by invitation, read a paper on "The Legal Duties and Responsibilities of the Medical Profession in Matters of Lunacy."

Dr. T. G. Leary (Vic.) read a paper on "The Treatment of Stammering."

Dr. Creed, M.L.C. (N.S.W.) read a paper on "Acute and Chronic Alcoholism and the Control of Inebriety."

An able paper on the "Psychology of Crime" was also contributed by Dr. J. V. McCreery (Vic.).

Other papers contributed were on "Hypnotic Suggestion," by Dr. Creed; "The Chlorides in the Blood of the Insane," by Dr. G. A. Hogg (N.S.W.); and "Craniometry of the Insane," by Dr. J. F. Mackeddie (Vic.).

FRIDAY, OCTOBER 23RD.—On this morning the section met at the Hospital for the Insane, Kew. Dr. M. F. H. Gamble (Vic.) read a paper on "Dementia Præcox," with illustrative cases. He then dealt with many controversial matters in a very able manner.

Dr. W. H. Barker (Vic.) read a paper on "Typhoid Fever in Insanity," giving a history of the cases in the recent epidemic, many of which had recovered mentally after the attack.

Dr. Hollow (Vic.) also read a paper on "Typhoid Carriers," illustrated by cases discovered during the same epidemic.

Dr. Steell (Vic.) contributed a very able paper on "Progress in the Treatment of the Epileptic Insane," which, owing to time, was much condensed, as was also a paper on the same subject by Dr. G. A. Hogg (N.S.W.).

Dr. Prior (N.S.W.) sent a paper on "Dysentery," which was taken as read.

DISEASES OF CHILDREN.

President: A. JEFFERIS TURNER, M.D., D.P.H. (Brisbane).

This section of the Congress has proved itself a conspicuous success. The meetings attracted a large attendance, all keenly interested, more especially in the demonstrations at the Children's Hospital, which were held every morning. There is no doubt that these demonstrations made the success of this section. On Tuesday morning there was an exhibition of cases of congenital syphilis, followed by a lucid blackboard demonstration of the anatomy and operative treatment of obstetrical palsy (Erb's or brachial palsy) by Dr. Basil Kilvington (Vic.). This was accompanied by an exhibition of eight cases of this affection, four in one family, showing the results obtained by operative treatment, shown by Drs. W. Kent Hughes, H. Douglas Stephens and B. Kilvington. Clinical demonstrations in the wards on neurological, cardiac, and surgical cases by Drs. R. R. Stawell, A. Jeffreys Wood, and Alan

Mackay, also much interested members present. The President, Dr. Jefferis Turner, read his address, which dealt with lead poisoning in childhood. W. Atkinson Wood and Dr. P. Bennie read valuable and interesting papers on congenital syphilis. Dr. Bennie's conclusions as to the widespread prevalence of syphilitic taint, and of its far-reaching effects in predisposing towards many other diseases and in contributing to their mortality, were of a startling character. A brief discussion was curtailed by the luncheon hour. In the afternoon a combined meeting was held in connection with the section on Neurology, at which Drs. A. Jeffreys Wood and F. Hobill Cole demonstrated a number of cases of idiocy in children, including especially cases of mongolism and of sporadic cretinism, many of the latter vastly improved by thyroid feeding. Some of them were quite presentable children. Dr. A. W. Campbell gave an elaborate lantern demonstration of the brain in amentia.

On Wednesday morning cases of congenital hip, showing absolutely perfect functional results from operative reduction some years previously, introduced a demonstration of the method of reduction in an actual case by Dr. Kent Hughes. The same surgeon gave a most instructive lantern demonstration of the anatomy of talipes equino-varus. Dr. H. M. Hewlett (Vic.) gave a lantern demonstration of surgical and medical cases, and Dr. A. J. Wood gave a paper on congenital hip.

Thursday opened with an exhibition of cases of tubercular hip and spine. Dr. H. Douglas Stephens (Vic.) gave a demonstration on a patient of Lovett's ingenious and promising method for the reduction of scoliosis, which was a novelty to most if not all those present. A practical demonstration of the application of Thomas' splint by P. Bennie (Vic.) impressed all by its deliberate accuracy and great attention to minute detail. A discussion followed, opened by Dr. Clubbe (N.S.W.), who maintained that equally good results were obtainable by other methods, and observed that the treatment by Thomas' splint appeared to be peculiar to Melbourne. All the Victorian members who spoke, however, were firm in their adhesion to this treatment. In the afternoon there was a discussion on the prevention of the introduction of infectious diseases into Children's Hospitals, opened by papers by Drs. W. E. Summons (Vic.) and R. D. McMaster (N.S.W.).

On Friday morning an exhibition of cases of infantile paralysis, treated many of them by novel apparatus, introduced able and exhaustive papers by Dr. H. Douglas Stephens and W. C. Mackenzie. An interesting discussion followed.

NAVAL AND MILITARY MEDICINE AND SURGERY.

President: Surgeon-General W. D. C. WILLIAMS, C.B. This, the new section of this Congress, was opened by the President (Surgeon-General W. D. C. WILLIAMS, C.B.), on Tuesday morning. After welcoming the visitors the President read a paper on "Medical Services in War," which gave an up-to-date account of the essentials of good medical service.

Surgeon-General SKERMAN (N.Z.) congratulated the President on his excellent and practical address. He had come to learn something of the Commonwealth medical services, and agreed with all that the President had stated. He then gave a brief *résumé* of the requirements of New Zealand, and how they were provided for at present by the New Zealand Government. He drew attention to the necessity of medical officers learning their powers and position whilst on active service, illustrating this by the ignorance displayed by medical officers in charge of ships returning from South Africa during the late war.

conclusion that the statistics supplied by Professor Allen and others are quite in accord with his own practice, and he supported the proposal that immediate and remedial measures should be directed against this disease.

Dr. ATKINSON WOOD (Victoria) gave the result of a search through the books of the Children's Hospital, a proportion of one death out of every seven being attributable to this disease, also citing some interesting experiences at the Sick Children's Hospital. He produced a card which he suggested should be made use of by the profession, having designed it with a view to facilitate references for the guidance of mothers. He considered the profession ought to be very honest in dealing with this subject. Spell it with a large S if you like, but be plain and honest in the matter.

Professor ALLEN, in rising to put the motion of Dr. Barrett, said that he thought it would be a great mistake if we were to quite agree with Dr. Bennie that syphilitics should never marry. He thought that with proper treatment, delay, and care, there was no reason why a man who had had syphilis should not be a good husband and a good father. He agreed with Dr. Webster that alcohol had a great connection with syphilis. He thought we should not allow Dr. Mason to lead us into any breach of medical etiquette in the matter of confidence between physician and client. These three things might be borne in mind—Syphilitics may marry; alcohol is a great friend to syphilis; and that in the matter of confidences every medical man must himself be the judge of what he ought to reveal and of what he ought not to divulge.

The motion of Dr. Barrett was put and carried unanimously.

The resolutions or suggestions by the various sections were put to the meeting, the President explaining that they would be attended to at once by the incoming Executive Committee, who would report from time to time, and finally to the next Conference.

Meeting adjourned until Saturday morning.

MASONIC HALL—SATURDAY MORNING.

FINAL MEETING.

The PRESIDENT read a letter from Miss Clarke conveying thanks and appreciation for the sympathy expressed by Congress with her mother Jane Lady Clarke.

The PRESIDENT called upon Dr. Arthur (Sydney) to bring the report concerning tropical Australia before the Congress.

Dr. ARTHUR stated that the section of Public Health had decided on the following resolution being presented to Congress, and he had much pleasure in moving—"That the Congress be asked to appoint a deputation to wait upon the Prime Minister and request that a Royal Commission be appointed to enquire into the possibility of permanent colonisation of tropical Australia by the Anglo-Saxon and other white races." The deputation to consist of Drs. Arthur (N.S.W.), J. W. Barrett (Vic.), Ramsay-Smith (S.A.), Elkington (Tas.), Ahearn (Q.), Pope-Seed (W.A.), and C. W. Reid (N.S.W.).

The statistical committee of Public Health and State Medicine moved the following resolution:—"That the Congress be informed that this section is of opinion that there is evidence to show the prevalence of physical defects amongst school children, interfering with their health and education, and it is therefore recommended that the responsible authorities in New Zealand and in those States which have not instituted a system of medical inspection should be urged to adopt some

uniform system of physical examination of all school children, carried out under the direction of, and where necessary by, medical experts."

Dr. CARTY SALMON thought that real results would not be attained by the mere passing of resolutions, what was needed was interviews and pressure brought to bear upon the respective Governments concerned.

Dr. ELKINGTON, representing the section of Public Health, stated that his section had decided to recommend to the Congress—"That, as recommended to previous congresses, there is a pressing necessity for regular annual conferences between the professional heads of the State departments of Public Health in Australasia, in order to secure in the public interests better co-ordination of hygienic effort, with better co-operation in its application."

The Eye and Ear section desired to urge on Congress—"The extreme importance of the medical inspection and examination of school children, and especially of their vision and hearing."

The Naval and Military section presented a resolution—"That in the opinion of this section it is in the highest degree advisable that all naval and military boards, or councils of defence, should have an expert medical member."

The section of Diseases of the Skin recommended to Congress—"That the various health authorities and hospital committees be recommended to take the necessary steps to ensure that adequate protection is provided for X-ray workers at the hospitals throughout the Commonwealth." "That this Congress strongly impresses on the profession the desirability of consulting only qualified medical men for its X-ray work."

These reports and suggestions from the various sections were unanimously adopted.

A general resolution was also agreed to in connection with the debate on abuses of hospitals, viz:—"That the resolution in reference to the abuse of hospitals be forwarded to all the recognised medical societies in all of the States and in New Zealand, and that these be asked to take whatever action such societies may deem advisable." "That a committee be formed to act with the next executive committee in dealing with the question of hospital management, and to report through that executive committee to the next meeting of Congress, such committee to consist of Drs. Worrall and Blackburn (N.S.W.), Lockhart Gibson and McLean (Q.), Hayward, Cavanagh Mainwaring (S.A.), Butler and Pardy (Tas.), Lewers, Moore and Barrett (Vic.), Seed, Holland and Saw (W.A.), Robertson and Ewart (N.Z.)."

Dr. ABBOTT, President of the New South Wales Branch of the British Medical Association, said that he had the honour of moving the resolution—"That the next Australian Medical Congress be held in Sydney in the year 1911." As President of the New South Wales Branch of the British Medical Association he could assure Congress, on behalf of the profession, that if the resolution were adopted New South Wales would give a hearty welcome to all the visitors from other parts of Australasia. He felt very much the kindly manner in which they had all been entertained during their stay in Melbourne, and assured Congress that they all went away with very pleasant memories indeed.

Professor ANDERSON STEWART moved—"That Dr. Frank Antill Pockley, of Sydney, be the President of the next Conference."

These resolutions were put to the meeting and carried with enthusiasm.

Dr. POCKLEY rose and thanked the meeting in the warmest terms for this, the highest honour they could

confer on him, in being made to feel that he had the trust and confidence of his colleagues. It was particularly gratifying to him that the motion had been moved by Professor Anderson Stuart, with whom he had been associated for more than 30 years, ever since he was a pupil under that distinguished gentleman in Edinburgh. He promised the Congress that they could be assured the medical profession in Sydney would do its very best to make the next Congress a success, though he hardly hoped to be able to emulate the magnificent reception that had been given in Melbourne.

Very unanimous and cordial votes of thanks were accorded to His Excellency the Governor and Lady Carmichael, the Lieutenant-Governor and Lady Madden, the Minister of Defence, Premier, and Government of Victoria, the Postal, Telegraph, Railway Departments, the Chancellor and Council of the Melbourne University, the Director of the Conservatorium of Music, the Melbourne Cricket Club, and others who had in any way contributed to the success of the Congress.

Thanks were also expressed for the notice taken by the Chapter of St. Paul's Cathedral, St. Patrick's Cathedral, and the Scots Church, Collins-street, in rendering special Congress services on Sunday the 18th instant, and to the Council of Churches for their cordial greeting and good wishes.

Professor STIRLING moved that the warmest thanks be tendered to the Management and Secretary (Mr. Andrews) of the Melbourne Hospital, for the use of the Board room, and thanks also the other kindred institutions which invited inspection by the members of the Congress.

Carried.

Dr. CAHILL remarked that before moving the motion entrusted to him he wished to thank the President and Executive Committee for the very intellectual and scientific treat provided for us during the past week, and also for the hospitality of the profession generally during our stay. He now moved—"That the Congress offers its warmest thanks to the press for the full reports of its meetings, and for the most excellent support given to the Session."

Carried unanimously.

The PRESIDENT also warmly supported this appreciation.

Dr. BUTLER moved that the Congress express its appreciation of the excellent preparations made by the various committees, and for the work done by the General Secretary and the associated Secretaries, and for the manner in which every thing had been carried out.

The PRESIDENT said it gave him very great pleasure to convey the vote of thanks to the different committees, and took the opportunity of thanking the Treasurer, Secretary, and Associated Secretaries for the accurate and thorough manner in which all their work had been carried out, and carried out, and he felt grateful to all who had co-operated with him.

Colonel THOMSON rose to propose a hearty vote of thanks to the President. He stated there was a distinguished countryman of his who had one time written a book, in which appeared a character—Domine Sampson—who was wont to exclaim "prodigious" when he felt overwhelmed, and he could safely say that the work of the President during Congress, and before it, could only be characterised as "prodigious." Nor would he care to forget someone else besides the President—there was the Lady President, who, with her many charms was so able to assist our President in

the work he had before him during the Session. He coupled the name of Mrs. Allen with that of the President, and called for a hearty vote of thanks, which was responded to by the gathering rising *en masse* and greeting the motion with cheers.

The PRESIDENT feelingly responded, and declared the eighth Session of the Congress closed.

Proceedings of Sections.

MEDICINE.

President: G. E. RENNIE, M.D., F.R.C.P., Sydney. The meetings of this section have been well attended. On Tuesday, October 20th, after delivery of the presidential address by Dr. G. E. Rennie in full Congress, the subject of syphilis was discussed from the point of view of the clinical physician. At the same meeting a valuable practical paper on "intragastic methods in the diagnosis of disease of the stomach" was read by Dr. J. F. Wilkinson (Victoria.) On the afternoon of the same day, a short sitting was held at which Dr. Nihill (Victoria) read a paper on "Some clinical distinctions in chronic Bright's disease," and Dr. Creed (New South Wales) contributed a paper concerning Oil of Sandalwood. On Thursday, October 22nd, conjoint meeting was held with the section of Pathology and Bacteriology to consider the subject of tuberculosis. Many important and valuable papers were read, and an interesting practical discussion followed. Dr. Julian Smith (Melbourne) gave a short but comprehensive review of the methods and usefulness of the estimation of tubercular opsonins. A full discussion followed, and the general feeling seemed to be that tuberculin was of undoubted therapeutical value in pulmonary consumption, but that the opsonic index was not now required to determine the amount or time of its dosage. Great interest attached to the fact that contributions were received from the Directors of sanatoria for tuberculosis in New South Wales, South Australia, and Victoria, and that a special contribution on the same subject was received from Dr. Grattan Guinness, of Auckland, New Zealand. An important paper setting forth the opinions of a clinical physician was contributed by Dr. A. E. Mills (Sydney). A full review of the usefulness of Calmette's ophthalmoreaction was brought forward by Dr. Sinclair Gillies (Sydney), and a most valuable paper on tuberculin and sanatorium treatment was read by Dr. McIntyre Sinclair, of the Wentworth Falls Sanatorium, New South Wales.

On the afternoon of Thursday, October 22nd, an important conjoint meeting with the section of Surgery, under the presidency of Dr. B. Poulton, was held to consider the subject of anaesthesia, general, local, and intraspinal. This subject produced a very crowded meeting. Dr. Embley (Victoria) brought forward an important contribution to pharmacological work upon the effect of general anaesthetics. A short practical paper on "Cases unsuitable for chloroform general anaesthesia" was read by Dr. Tate Sutherland (Victoria), and a full and valuable review of spinal anaesthesia was brought forward by Dr. Zwar (Victoria). A short and practical paper on local anaesthesia was also contributed by Dr. Sydney Patterson (Victoria.) Dr. J. W. Springthorpe (Victoria) presented a short statement, and showed diagrams of the method of administering somniform in dental work. In the discussion which followed, Dr. Crowther (Tasmania), Dr. Hornabrook (South Australia), Dr. Jackson (Queensland), Drs. Moore, Syme, and Dunhill (Victoria) and several others took part.

Late in the afternoon of the same day a small meeting was held to consider papers on various subjects. Dr.

Melbourne medical men were the hostesses at the Alexandra Ladies' Club in the afternoon, where the visiting ladies were entertained, and in the evening the President and Mrs. Allen welcomed an enormous assemblage at the Melbourne University, the grounds and buildings of which were quite transformed for the occasion, with strings and festoons of innumerable coloured electric lights. The guests, numbering about 1500, were received under an awning between the Wilson Hall and the main building. After the arrival of his Excellency the Governor, a concert was given in the Wilson Hall under the direction of Prof. and Mrs. Peterson. Messrs. L. Hattenbach (violin) and A. Zelman (violin) delighted members with their solo and concerted playing, and some charming part songs were sung by lady members of the University Conservatorium. At the close of the concert, refreshments were served in the conservatorium building, which was most lavishly decorated.

SATURDAY, OCTOBER 24TH.—The Congress house-boat at Henley regatta was crowded both afternoon and evening by members of Congress and their friends, the hosts in the afternoon being the General Secretary, Dr. H. C. Maudsley and Mrs. Maudsley, and in the evening a committee of members of the Melbourne Medical Association.

SUNDAY, OCTOBER 25TH.—In the afternoon a party of members of Congress availed themselves of the invitation of the Defence Department, and enjoyed a short trip across Port Phillip Bay in the Department's steam launch "Vulcan," an early return, however, being made to town, as many of the members had other engagements for the evening.

Dr. and Mrs. J. P. Ryan, of "Hybla," Toorak, were "at home" in the afternoon, when they entertained members of Congress and many personal friends. The decorations were bowls of roses, lily of the valley, and carnations, which were much admired. Songs were rendered by Miss Beatrice Madden, the hostess, and Dr. O'Hara.

MONDAY, OCTOBER 26TH.—Those of the members of Congress who remained in Melbourne were the guests of Sir Henry and Lady Wrixon at the State Parliament House at a reception held on Monday evening. Considerably over 1000 guests were invited, and amusements were provided in different parts of the building, including cinematograph views in the main hall and a concert under the direction of Avalon Collard.

Many other dinner parties and other entertainments were given at which members of Congress were the guests during the week; and many took advantage of the near approach of the Melbourne Cup festivities to extend their holiday. The V.R.C., with their usual generosity, extended an invitation to all members of Congress from the sister States to the meetings of the Cup carnival.

BATTLE OF THE CLUBS.

YOUNG, N.S.W.

A SETTLEMENT has been arrived at between the late medical officers of the Young Friendly Societies who are members of the B.M.A. and the lodges at Young, and a new agreement has been entered into under which these medical men will resume their appointments as medical officers to the Young lodges on January 1st next. It will be remembered that two years ago the doctors resigned their appointments in consequence of the refusal of the lodges to redress certain humiliating

conditions which then prevailed. The chief of these were the low rate of 21s per member per annum, including medicines, and 21s accouchment fee; other minor matters needed readjustment, such as the mileage fee, 3s in some cases and 5s in others, and the lodges were asked to secure to their medical officers payment of these extra charges within a reasonable time.

The lodges advertised for and obtained two medical men, and later, one of these having resigned, a third was appointed. Latterly the members appear to have become dissatisfied with the arrangements made, and delegates were appointed to interview the former medical officers, and, if possible, arrange for their re-appointment. The negotiations so opened up have now been brought to a satisfactory conclusion, and the present medical officers have received notice from the lodges that their services will not be required after December 31st next. Under the new agreement the medical officers are to receive 26s per member, 42s for accouchment, and a uniform rate of 5s mileage. If the fees for accouchment and mileage are not paid within three months the medical officers are entitled to charge ordinary private rates of fees, and the members forfeit their claim to the special cheap rates secured to them as lodge patients. In the event of past fees for mileage being unpaid, the doctor is relieved from the obligation of attending, but if he elects to do so he may charge his ordinary fees. A provision is inserted excepting the doctor's attendance as lodge surgeon in all cases where legal damages or monetary compensation is paid to members in accidents or illness in which legal responsibility is placed on some third person, as, for instance, employers. All minor conditions likely to be the subject of vexatious encroachments on the medical officers are clearly and satisfactorily defined, the new B.M.A. agreement being taken as the basis of the fresh terms. It is expected that the new agreement will prove satisfactory to both parties concerned.

OBITUARY.

We regret to record the death from Bright's disease of Dr. J. B. Hogg, Inspector of Asylums for the Insane for Queensland, and resident Medical Superintendent at Goodna, which took place on October 20th. Dr. Hogg was born on September 30th, 1856, and before he took his medical degree was employed as an accountant in a commercial house. He was first connected with the Queensland Public Service in 1883, and took up the position he occupied on October 1st, 1898. He had the reputation of being a most careful administrator. The Home Secretary referred in terms of regret to Dr. Hogg's death. He had been on leave of absence for some months, but as he did not seem much benefited, six months' leave was granted to him a fortnight ago. The remains were brought to Toowoomba. The body was met upon arrival by a number of the warders of the Toowoomba Hospital for the Insane, who carried the coffin to the hearse and also acted as pall bearers. A number of them walked in procession as far as West-street. The deceased's three sons were among the chief mourners, and a number of prominent citizens were present, including the Hon. H. L. Groom, M.L.C. A large number of wreaths was placed upon the coffin, among them being tributes from Dr. and Mrs. J. R. Nicoll, different sections of the Willowburn staff, and local residents.

FOR SALE, X-ray and High Frequency Apparatus, App. Coil, Cabinet Tubes, etc. F. ANTILL POCKLEY, 227 Macquarie-street, Sydney.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

*The Imperial Cancer Research Fund—Women Doctors
The Birthday Honours—University College—Guy's
Hospital—Tuberculosis in Ireland.*

THE annual meeting of the Imperial Cancer Research Fund was held at the Royal College of Surgeons on July 14th. In the unavoidable absence of His Royal Highness the Prince of Wales, who is President of the fund, the chair was occupied by the Duke of Bedford. In the course of his report Dr. Bashford, the general superintendent, after alluding to the progress achieved since the investigations of this special research were begun six years ago, states that there need be no misgivings as to the future of experimental investigations if only due patience be exercised. "Cancer," he says, "is widely distributed throughout the world both in man and other vertebrate animals. It has been shown that cancerous tissues of a species of animal retain the characters of that species, whereas in infective tumours (e.g., tubercle), occurring naturally in separate species, the biological characters of the newly-formed tissue are determined by the common infective agent and not by the tissues of the affected animal. Within a species the individual tissues after they have become cancerous, retain characters corresponding to those which distinguish the several normal tissues from one another. The demand of cancerous tissue for food is responded to by the digestive apparatus of normal animals. The growth of experimental tumours can be prevented in its inception, by treatment with the corresponding normal tissues, e.g., by skin in the case of skin cancer. These facts could only have been elicited by experiments on the living animal, and although a practical outcome is not yet in sight, and an emphatic caveat must be entered against their premature application to treatment of the disease in man, a practical outcome is foreshadowed—the enhancing the resistance of an organism, so that a malignant new growth, once present, will not be able to disseminate. Meantime, the rationale of the early surgical removal of primary tumours is amply justified by experiment, and no substitute for it has been found either in experiment or in alleged empirical remedies." The honorary treasurer, in his report, acknowledges "the very liberal assistance rendered to the fund by the two Royal Colleges, which have provided free of all charges such excellent laboratory accommodation, as well as all the attendant expenses connected with the rates and taxes and lighting of such a building. How far such bounteous hospitality can or will be rendered by the colleges in the future, in the new Conjoint Examination Hall, remains to be seen. But if it be not continued, the necessary pecuniary outgoings of the Imperial Cancer Research will be greatly increased and the encroachments on capital largely extended, unless the receipts in the coming years are correspondingly higher, or large donations are forthcoming from other munificent donors." The expenditure, which amounted to over £14,727, exceeded the donations, subscriptions, and dividends by £1,443. The Executive Committee reported: "Invitations have been sent to the general superintendent, Dr. Bashford, and through him to the Executive Committee to join in the establishment of an International Committee on Cancer Research, with its headquarters at Berlin. The Executive Committee, however, still hold the opinion that more advantage is to be gained by encouraging

an active interchange of views and of material between the workers in the laboratories in the various countries. In pursuance of this policy the committee granted facilities for Dr. Gierke, from Berlin, and Dr. Russell, from Aberdeen, to work in the laboratories, which have been also visited by a considerable number of distinguished scientists from America, France, Germany, etc., who were anxious to become acquainted with the details of the organisation and administration of the fund, and of the experimental processes employed in the laboratories." The adoption of the annual report was moved by Sir William Church and seconded by Mr. Butlin. A vote of thanks was passed to the chairman and members of the Executive Committee, the sub-committees, the hon. treasurer, and others who have assisted the work of the fund in the past year: Prince Francis of Teck, the Duke of Bedford, and the Knight of Kerry were elected vice-presidents; and Mrs. Bischoffsheim, Mr. Hubert Gore Lloyd, Mr. R. C. Ponsonby, and Mr. Gerard Fiennes were appointed members of the General Committee. The nomination of Sir William Church by the Executive Committee for re-election by the Royal Colleges of Physicians and Surgeons as a member of that committee was approved.

There are, says the *Oberverer*, some eight hundred medical women now on the official register, and with the exception of the English colleges and the Universities of Oxford and Cambridge, all qualifying bodies admit them to membership. Ten years ago the Council of the Royal College of Surgeons expressed itself, in response to a petition, willing to admit women, but at that time the Council of the Royal College of Physicians objected, and no action was taken. Now the question has been raised again, and the majority of the Fellows of both colleges are in favour of their admission. The members, however, of the Royal College of Surgeons have still a small majority averse to the proposal, but out of a total poll of 9569 the majority was no more than 415 against admission to membership and 1182 against admission to fellowship. Seeing that the decision on the question rests entirely with the Council, it is a little difficult to understand why members were asked to vote, and in well-informed medical circles the opinion is expressed that it will not be surprising, in view of the fact that a considerable majority of Fellows are in favour, and that the proposal is now strongly supported by the governing body of the College of Physicians, to find that they will act upon their already expressed resolution in favour of the admission of women, at least to membership. The following opinion on these returns has been expressed by a physician of some experience:—"The figures indicate a very strong growth of feeling in the profession in favour of women. Ten years ago, if a similar vote had been taken, the majority against the proposal would have been much greater; in ten years' time the opposition will be difficult to discover. The growth of feeling favourable to women is specially marked amongst the higher branches of the profession, as shown not only by the vote of the Fellows of the College (there being a majority of 288 Fellows in favour of administration to membership and of 34 for admission to fellowship), but also by the still larger majority obtained at the Royal College of Physicians at a meeting of the Fellows to discuss the admission of women to that college. More than one-third of the members, moreover, did not take the trouble to record their vote, and hence, presumably, have no serious objection to the proposal."

The Birthday Honour List contains the following names of members of the medical profession:—"To be

Baronets—Sir Thomas Lauder Brunton, LL.D., M.D., F.R.S.; Professor William Watson Cheyne, C.B., LL.D., F.R.C.S., F.R.S. To be Knights—Brevet-Colonel David Bruce, R.A.M.C., (C.B.), F.R.S.; Robert William Burnet, M.D., F.R.C.P.; Peter O'Connell, M.D., M.Ch. To be Knight Commander of the Bath—William Henry Power, promoted from a Companion of the Order. To be Companion of the Bath—Lieutenant-Colonel Johnston Shearer, I.M.S., D.S.O. To be Companion of the Indian Empire—Lieutenant-Colonel Francis Frederick Perry, I.M.S.

On July 2nd Lord Reay presided over a meeting at University College, when the results of the scholarship and class examinations were announced, and the prizes distributed by Sir Edward Fry. Professor Pollard, Dean of the Faculty of Arts, read a report on the work of the session, in which he pointed out the great improvements made recently. The most important, or the most original, was the creation of a series of Arts Seminar libraries to provide for the arts student what the laboratory did for the science and engineering student, to provide for him a place wherein those original materials upon which his studies must be based could be tested and used. These training libraries, occupying ten continuous rooms, were unrivalled in any British University, and they were the most important means the University possessed for the development on the arts side of schools of post-graduate research. The efforts of the college departments to realise academic ideals had, during the past session, been as strenuous and successful as ever. The number of students was 1302, as against 1191 at this time last year. He referred with regret to the resignation of Sir Arthur Rücker, Principal of the University, and hoped that it did not involve the severance of his ties with the college, to which he had devoted no small part of his time. Nothing but incapacity on its own part could prevent the University of London from fulfilling the designs of its pious founders and becoming worthy of the city in which it lived, expanded, and taught. Sir Edward Fry said the report of the Dean was remarkable in showing the great extension of the college. Sixty years ago he himself entered the college as a student, and among eminent men he remembered there as students were J. S. Mill and Robert Browning, and many who had since become eminent professors. During those 60 years, training had become specialised. In his day one professor took history; now there were six. There had been little or no post-graduate research, but now nearly 200 students availed themselves of the opportunity. The college was one of the first, if not the first, to give opportunities of learning to both sexes, and the University of London was one of the first to give degrees to women. Regarding the Dean's report, he had been long of the opinion that legal education ought to be divided between the Universities and the Inns of Court, the latter to give teaching in the more practical and technical branches of the law. Lord Reay, in proposing a vote of thanks to Sir Edward Fry, said the college represented a cosmopolitan field of modern research and was prepared to give attention to any branch of knowledge for which there was a call. The guests afterwards took tea on the lawn, and were attracted by Professor Petrie's exhibition of Egyptian relics.

The treasurer of Guy's Hospital has issued his report upon the work done during 1907. In the course of it, he states that, at the end of the year, all loans had been paid off, and the hospital, chiefly through bequests from Mr. Alfred Beit and Mr. Samuel Lewis, was free from debt. This has placed the governors in the com-

fortable position of having completed and paid for all that was included in the appeals of 1901 and 1905, and clears the way for other necessary developments, such as the augmentation of the annual income, the creation of a new out-patient department and of children's wards, and the rebuilding of clinical house. The first of these works has already been proceeded with, on the strength of munificent contributions towards the special object from an anonymous donor and from the Council of King Edward's Hospital Fund for London. The volume of work done by the hospital in 1907 exceeded that of any previous year. This was marked in the case of in-patients, 8733 persons having been accommodated during the year, compared with 8447 in 1906. The income and expenditure account shows a total income, ordinary and extraordinary, of £95,370, which sufficed to discharge the ordinary expenditure of £84,954 and to repay the outstanding loan of £27,500 to the re-endowment fund, leaving a surplus balance of £2915. Excluding legacies, the ordinary income did not equal the ordinary expenditure. The needs of the future are stated to consist in funds to provide the balance of the cost of the new out-patient department, the rebuilding of clinical house, separate children's wards, and the reduction of the difference between assured income and necessary ordinary expenditure through increased annual subscriptions and the augmentation of the re-endowment fund. The treasurer adds that the fact that the corporation is now entirely free from debt—for the first time for many years—encourages the governors in the hope that in relying upon public assistance to enable them to remain in so desirable a position they will not hope in vain.

Ireland has attained an unenviable reputation with regard to tuberculosis. Its mortality from pulmonary disease is exceeded by only three countries in the world, Austria, Hungary, and Servia. The death-rate from phthisis now stands at 2.7 per 1000, as compared with 1.6 in England, and 2.1 in Scotland. This represents an annual mortality of 12,000 persons, most of whom die between the ages of 15 and 35. An effort to amend matters was initiated last year by the foundation of the Women's National Health Association of Ireland. Lady Aberdeen, who was responsible for the inauguration of this association, aimed chiefly at attracting the attention of Irish women to the gravity of the situation, and at securing their assistance to promote the health and vigour of the nation, by improving the hygienic conditions of the national schools, by adopting means for the reduction of infant mortality, and by disseminating ordinary knowledge as to the preventive measures requisite to diminish the spread of consumption. Following the example of the United States, Germany, and some other countries, a tuberculosis exhibition was promoted last year in connection with the Dublin International Exhibition. It was entirely of an educative character, and consisted of several sections to demonstrate the different forms in which the disease might present itself, the various appliances and methods now in use for its proper management, and the success which had been attained by the adoption of these measures in other countries. A series of lectures was also delivered by eminent medical men on the subject of human tuberculosis, and also on tuberculosis as it affects the lower animals, its relationship to milk, meat and other articles of diet, and the different ways in which infection is capable of being spread. The exhibition was successful, and requests were made for it to be repeated in other towns throughout the country. Two exhibitions were prepared, one to go north and the other south. These exhibitions have gone to over

60 towns, and between 700,000 and 800,000 people have visited them. There is every reason to hope that they have been the means of stirring up local authorities to a greater sense of their responsibilities and of directing public attention to an evil which it is in its power to mitigate to a considerable extent. In Dublin a system of home nursing has been introduced through the hearty co-operation of the medical staff of the different clinical hospitals and the Women's National Health Association. The nurses teach the patients and their friends the ordinary measures for preventing the spread of the disease, the use of thorough ventilation, and the necessity for strict cleanliness. They also advise the best dietary, and in many cases assist in giving eggs, milk, meat, and the like. The committee in charge of this work is satisfied that much good is being done in the homes of the poor consumptives, and that there will be great benefit from every point of view, specially from the educative. Many other towns are doing the same, and good work is reported all round. Another result is that guardians and urban councils are putting up on the grounds of the already existing institutions, chalets, sheds, and tents where tuberculous patients can be properly treated. Then, again, the association has recently opened in Dublin an infant milk depôt, the plant of which was given by Mr. Nathan Straus, of New York. By the use of pasteurised milk it is hoped that the death-rate of infants under one year will be greatly reduced. In Belfast a Baby Club has been formed, corresponding somewhat to the Mothers' Club or Union, which is doing effective pioneer work in St. Pancras. Thus a great scheme has been launched under the watchful care of the Countess of Aberdeen, and from it much good to the country may well be looked for.

CONTRACT PRACTICE ABUSE.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Recently I accepted a position as *locum tenens* in one of the most prosperous and wealthy squatting districts of New South Wales. There were many graziers with comparatively small holdings, but all of the well-to-do class, as their surroundings and "turn-outs" in which they came to town evidenced. As in every country district, there was a percentage of those persons who were living from hand to mouth, but it was small.

On arrival at my destination I found, in addition to the general practice, there were several local clubs included in the list of the work to be done. My new experience in Australia will account for my great surprise when I found many of the residents who were in comfortable circumstances enrolled as members of the clubs, and who in the most matter-of-course way were taking all the advantages of an institution brought into existence to help the poor—the destitute, by the way, being left to the charitable care of the medical profession, the members of which have ever been called upon to help them financially as well as medically.

I have seen how the hospitals are imposed upon and unfairly taken advantage of by mean individuals, but was not prepared to witness a well-to-do, self-respecting people associating themselves as members of clubs for the sole purpose of saving up riches at the expense of the medical profession.

It has occurred to me that some action should be taken to protect the members of the profession from this great and growing imposition. Our professional authorities should prevent medical men from admitting into clubs and from attending at contract practice rates all persons who are able to pay "reasonable" fees. If

prompt action be not taken medical practice will speedily deteriorate, or get into the hands of a class of practitioners with poor ideals and a low type of work, and the general community will suffer.

During the short period I was in the district, I had brought under my notice several examples of the unfair manner in which the benefits of the clubs are secured—

1. A man and his wife applied for admission to one of the clubs; they being in a healthy condition, were admitted to membership under the rules. There was no restriction placed upon me by the profession's authorities to prevent a man worth thousands being admitted. I ascertained that the man and his wife had recently returned from a trip to the old country, and were in a position to pay the ordinary fees.
2. A resident of the town, owner of a number of houses and shops in the best part of the town, was a member.
3. A local hotel-keeper, well-to-do, whose daughter is attending college in a city.
4. A road contractor and his family, who was notably fortunate in his contracts, were also members. (In one deal lately he was reported to have made £1500.)
5. A farmer who needed medical attendance every day for three weeks, at the end of my visit invited me to join him in a bottle of wine. I could give many other instances of persons improperly using these institutions.—I am, etc.,

"REFORM."

October 12, 1908.

THE AUSTRALASIAN UNIVERSITIES.

Sydney.—At the monthly meeting of the Senate of the University of Sydney, held November 2nd, the Chancellor (Sir Normand MacLaurin) presiding, a cablegram from Professor Fawsitt, acknowledging his appointment to the Chair of Chemistry, was received. The receipt of the grant of £250 from the Queensland Government for the year 1908-9 in aid of the Institute of Tropical Medicine at Townsville was reported. The degree of Master of Surgery was conferred *in absentia* upon Mr. David Hannam Graham, M.B., on his application. On the recommendation of the Dean of the Faculty of Medicine, the following examiners were appointed for the fifth year examination in the Faculty of Medicine:—Board of Medicine, including Clinical Medicine: The lecturers in Medicine and Clinical Medicine; two outside examiners, viz., Dr. Macdonald Gill and Dr. E. J. Jenkins. Board of Surgery, including Clinical Surgery: The lecturers in Surgery and Clinical Surgery; two outside examiners, viz., Dr. T. Fiaschi and Dr. Charles MacLaurin. Board of Midwifery and Gynaecology: The Lecturers in Midwifery and Gynaecology; two outside examiners, viz., Dr. S. H. MacCulloch and Dr. Fourness Barrington. Board of Medical Jurisprudence and Public Health: The Lecturers in Medical Jurisprudence and Public Health.

Dr. Wiley, of the Bureau of Chemistry of the Department of Agriculture, has extended the investigations of the Bureau to include the examination of cracked dishes, taken from some of the "quick lunch" rooms of Washington. Lurking in the seams and cracks 25 different species of organisms were discovered by the bacteriologist of the Department, a large number of them belonging to the colon group. In spite of the spotless appearance of the kitchens of some of these places, Dr. Wiley holds there is danger from them, since it is impossible to clean cracked dishes properly. The conditions found in Washington could doubtless be duplicated in any large city, and are probably of little importance in the dissemination of disease.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of October, 1908:—Registered deaths in the metropolitan municipalities numbered 477 after the distribution to their proper districts of deaths in general hospitals and hospitals for the insane. This is equal to an annual death-rate of 10·30 per 1000 of the estimated population, and, when corrected by the metropolitan share of deaths in the benevolent asylums of Parramatta, Rookwood, and Liverpool, it becomes 11·15 per 1000. Infectious diseases caused 23 deaths, four of which were due to scarlet fever; 3 to influenza; 5 to diphtheria; 1 to typhoid fever; 4 to cerebro-spinal fever; 1 to erysipelas; and 5 to puerperal fever. Diarrhoeal diseases caused 21 deaths, or 25 per cent. less than the previous quinquennial average of deaths from these causes in October. Phthisis with 35 deaths, respiratory diseases with 50 deaths, and Bright's disease with 26 deaths, were all slightly less fatal than usual; but the deaths from cancer (37) and diseases of the heart and blood vessels (79), were above the average. Among infants under 1 year of age, 96 deaths occurred. This is equal to an infantile mortality rate of 70 per 1000 births. The principal causes of infantile mortality were:—Prematurity, 23 deaths; developmental diseases, 23 deaths; convulsions, 5; respiratory diseases, 20; diarrhoeal diseases, 12. The attacks of infectious disease notified numbered 223, of which 132 were due to scarlet fever, 81 to diphtheria, and 10 to typhoid fever. Two plague rats were caught on the Darling Harbour wharves during the first week of the month, but no cases of plague occurred in human beings. Within the City of Sydney, 11 cases of pulmonary consumption were notified under the City Council's by-laws, and 7 dwellings were disinfected by the Council's staff after the death or removal of consumptive persons.

Adulterated Drink.—A constant watch is kept upon the hotels in the metropolitan area to detect any adulteration of drink. For some years past, samples of liquors have been taken by the police from hotels of every class and in every locality in the metropolitan area. 2749 samples have been taken since the standards of strength of spirits were fixed in November, 1901. These samples were taken from such bottles or vessels containing liquor as were selected by the inspectors, and were forwarded to the Government analyst to be tested. None of the samples, however, have been found to contain anything deleterious or

injurious to health, with the exception of some wine taken some years ago, and a few samples of brandy not considered genuine, in respect of which a test case is now pending. In addition to the above, nearly 600 samples of liquor have been taken by the police from hotels in the country since the beginning of last year, many of them from towns in the far west, but no injurious ingredient could be traced in any of them.

Tuberculous Cows.—A prosecution successfully undertaken by one of the Health Department Inspectors against certain dairymen for selling cheese manufactured from the milk of a tuberculous cow has been reported to the Board of Health. The president of the Board states that three or four prosecutions for a similar offence have been successfully instituted, and it cannot be too widely known that the most stringent action will be taken by the Board in every case which comes under its notice, as the offence is a heinous one. The consumption of meat and milk of tuberculous animals is amongst the most serious causes of the prevalence of tuberculosis, and it is a fact that bacilli introduced through cheese and butter do not die, but survive in the manufactured article, if not indefinitely, at all events during all the time in which they are in other respects fit for the food of man. A fine of £12 odd, which, in the case referred to, was inflicted by the magistrate, although no doubt inconvenient to the dairyman, seems far from commensurate with an offence which is likely to lead to the death of some human being.

Sydney Water Supply and Sewage Treatment Works.—Dr. Stokes, medical officer to the Board of Water Supply and Sewerage, reports as follows:—

METROPOLITAN WATER SUPPLY.

Chemical analysis of sample from a tap in the city, October, 1908:—

Colour	15° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·0000
Chlorine	3·0000
Nitrogen as free ammonia	·0000
„ „ albuminoid ammonia	·0122
„ „ nitrites	·0000
„ „ nitrates	·0080
Oxygen absorbed in 4 hours	·0921
Permanent hardness	1·8
Total hardness	3·0

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during October, 1908:—

Final Effluents from	Turbidity	Odour.	Parts per 100,000.							Per cent. Purification.		Incubator Test Seven days at 57° C
			Suspended Solids.	Chlorine.	Nitrogen as				Oxygen Absorbed	Albuminoid Ammonia.	Oxygen absorbed in Four hours.	
					Free Ammonia	Alb'min'id Ammonia.	Nitrites.	Nitrates.				
Chatawood ..	.. M'rk'd	Nil	2·7	11·4	1·870	·255	·023	·140	·807	69·6	75·1	No decomposition
Folly Point..	.. „	Slight	3·0	10·6	2·995	·252	·036	·064	·877	77·3	85·0	„ „
Balmoral ..	.. V. Sl't	Nil	·8	12·8	·625	·070	·014	2·246	·479	94·9	90·4	„ „

Impure Foods.—The results of analyses of samples of foods obtained by the Waverley municipal sanitary Inspector, and forwarded to the Board of Health, were read before the council at a recent meeting. The Board's Officer intimated that the percentage of adulteration in about eight of the samples would sustain prosecution, and that warnings might suffice in the cases of a couple of others. The samples concerned consisted mainly of vinegar and lime juice. After discussion, the motion was carried. It was also decided to hold the matter over for a month, and that warnings be issued in the meantime.

Queensland.

Plague.—Dr. B. B. Ham, Commissioner for Public Health, reports for the four weeks ending November 7th, 1908:—*Brisbane.*—T.E.R., a male, aged 6 weeks, a twin infant, residing near Bundah, a suburb of Brisbane, died on the 5th instant. A post mortem at the General Hospital revealed the presence of pestis. Cultures and guinea-pigs have been inoculated. During the period 1623 rats and 171 mice were destroyed, 1248 rats and 160 mice examined; date of last infected rat, September 15th, 1908.

Victoria.

Board of Health.—The infectious diseases report for the fortnight ended 31st October, showed that the number of cases of scarlet fever reported throughout the State was 59, with 1 death, as against an average of 14 cases, with no death, for similar periods of the previous four years. In the metropolitan area there were 30 cases, as against the average of 10. There was no special grouping of cases. The returns of typhoid fever and diphtheria were normal. It was resolved to send to the Inspector of Charities, the City Council, and the Children's Hospital, copies of Dr. Robertson's report on the latter institution, in which he said that his inquiries convinced him that the description, "infectious diseases exchange," applied to the hospital, was warranted. Dr. Norris stated that reports of two cases of diphtheria had just been received from the Children's Hospital. One of the patients had been receiving attention in the hospital for burns, and the other for infantile paralysis, and they had been inmates for six and five months respectively. In both cases the attack was nasal, indicating that the disease probably had been inhaled, and he had no doubt that infection occurred in the hospital. The use of fly-proof doors for State schools was recommended by the shire of Rodney, on the advice of Dr. Florance, in a letter received by the Board of Health. The chairman (Dr. Norris) said the desirability of having fly-proof doors for the schools was undoubted, but it was a question whether the local authorities should not pay the cost. On the motion of Dr. Smith, seconded by Mr J. Styles, it was decided to send the letter to the Education Department, with an intimation that the Board approved of the proposal.

Tasmania.

Health of Hobart.—The Acting Medical Officer of Health (Dr. Campbell) reports that during the month of September there were 49 deaths in the registration district of Hobart, but two of these were of persons not usually resident in the district. Of the above, in the city proper, there were 29 deaths, viz., 16 males and 13 females, giving a death-rate of 10.56 per 1000 per annum. The principal causes of the deaths were:—

Heart disease, 5; senility, typhoid, cancer, and premature birth, 3 each; phthisis, 2, and the remainder were of a general character. 4 were under 1 year of age at death; 2 between 1 and 5 years; 13 between 5 and 65 years, and 10, 65 years and over. The total number of births registered in the district was 82—37 males and 45 females; in the city proper, 66, viz., 30 males and 36 females.

West Australia.

As a result of the inquiry into the presence of tuberculosis in dairy herds, it was decided to carry out an investigation to determine, if possible, two points: The presence of tubercle bacilli in the milk from cows which reacted to the tuberculin test, and the infecting from the point of view of tuberculosis of the faeces from reacting cows. This investigation is now being carried out in the laboratory of the Central Board, and the crucial test relied on is the injection of guinea pigs. A full report of the results will be published when the investigation is completed.

A Royal Commission to enquire into the meat supply is now being held in Perth, and one of the objects of the Commission is to report on the provision of chilling and freezing works in the north-west, i.e., nearer the source of supply. An enquiry was made into the preservation of the meat in the Government ice works in Perth. It was found that the ice-rooms contained abundant spores of various mould-fungi, which had begun to grow on the meat, even at the low temperatures obtaining in the ice-rooms. A full report of this will be published.

It is intended in the future to give the police officers in the remote country districts the full power of sanitary officers. Many of such districts are too small to maintain a local Board of Health, and the staff of the Central Board is too small to adequately supervise them. By utilising the police force it is expected that much benefit will result.

The numbers of cases of diphtheria and typhoid fever notified for the quarter have been 434 and 45 respectively, as against 683 and 248 respectively for the second quarter, and 315 and 239 for the first quarter of this year.

AUSTRALIAN MUTUAL PROVIDENT SOCIETY.—With the close of the present year the A.M.P. Society will attain its Diamond Jubilee, and in accordance with its time-honoured custom will as usual distribute among the members the profit earned during the year. It would, therefore, be most fitting if the accession of new members to participate in the year's bonus establishes a record in its history. In our advertising columns an announcement is made that every participating policy in the ordinary department taken out before the year closes will share in the bonus to be divided as the result of this year's operations. What this may mean can be gathered from the fact that for 1907 £708,245 was distributed by way of a cash bonus among the policyholders; but as some evidence of the wonderful bonus-producing power of this well-known institution we might mention this sum was equal to more than a third of the total premiums received by the Society during the year. The aggregate cash bonuses divided by the Society since its inception reaches £13,596,507. Intending assurers should, therefore, not hesitate to take the earliest steps to qualify for membership.

Health of Sydney.

METROPOLITAN COMBINED SANITARY DISTRICTS.

Abstract of the Annual Report of the Medical Officer of Health for the year 1907.

Population—The mean population of the metropolis (Sydney and suburbs) for the year 1907 is estimated at 565,904 persons. This estimate includes only the population within municipal boundaries, and does not include the population of the shipping or islands in Port Jackson. The method adopted in this report for the estimation of the mean population has been to obtain the mean number of occupied houses in each municipality for the year, and multiply that number by the average number of inhabitants per occupied house found in each municipality at the last census. The products have been multiplied by the factor '965 in order to correct a tendency to over-estimation of the population which might otherwise result. The mean population of the metropolis for the year 1907, as estimated above, shows an increase of more than 22,000 above the estimate for 1906; but it is certain that the estimate for the last-mentioned year was too low. In any case, the expansion of the population of the metropolis during the 1906-1907 period was most remarkable. It was not equally diffused in all parts of the metropolitan district, but was confined to the fringes, or less central parts of the area. The northern suburbs, North Sydney, Mosman, and Manly, witnessed a striking activity in building operations, and Canterbury, Waverley, and the Illawarra suburbs were not far behind them in this respect. In Mosman alone, according to my returns, there were 255 more occupied dwellings in 1907 than in 1906. In the city, Balmain, Glebe, Paddington, Redfern, and some others of the older and more centrally situated districts, there was little or no increase.

Births—The birth-rate for the year was 25·31 per 1000 of the estimated mean population. The illegitimate births numbered 1546, or 10·7 per cent. of the total births.

Deaths—The deaths of residents in the metropolitan municipalities registered during 1907 numbered 5796, or 470 more than in the year 1906. The crude death-rate for the year was, therefore, 10·24 per 1000 of the estimated mean population. This figure is arrived at by deducting from the registered deaths all deaths of non-residents which occurred in metropolitan hospitals, all deaths which occurred in the two Hospitals for the Insane situated within the metropolis (Gladesville and Callan Park), and all those which took place on board of shipping in the port. Some deaths of residents of the metropolis, which took place outside the metropolis (Waitara Foundling Home), have been included. The total number of deaths in New South Wales during 1907 was 16,410. The number of deaths in the great benevolent asylums and hospitals for the insane throughout the State during the same year was 1133. If the total number of deaths in the State be divided by a figure produced by subtracting the institution deaths from the total deaths, it will give the following factor, thus: $16,410 \div 16,410 - 1133 = 1.074$. If the crude death-rate for the metropolis already given—10·24 per 1000—be multiplied by the factor 1.074, it becomes 11·79 per 1000 of the estimated population, and this last figure is to be regarded as the death-rate for the metropolis for the year, plus the metropolitan share of deaths in the benevolent asylums and hospitals for the insane throughout the State of New South Wales. The highest death-rate in any portion of the metropolis was experi-

enced in Botany, which had a crude rate of 15·12 per 1000. No other district approached this high rate, and the next heaviest mortality occurred in Paddington, 12·80 per 1000; North Botany, 12·47; and Newtown, 12·40. In all these municipalities urban conditions prevailed. At the other extremity of the scale are the rural municipalities of Lane Cove and Kogarah, both of which had death-rates of 6·05 per 1000. Other suburbs which had death-rates of less than 7 per 1000 were Drummoyne and Mosman.

Scarlet Fever Incidence—Fewer attacks of scarlet fever were notified in 1907 than in any year since 1901. The total number in the metropolis was 976, and the attack rate per 1000 of the population was 1·72, while that of the year 1906 was 3·93 per 1000, or more than double. The disease was most prevalent during the last three months of the year, and least prevalent in the first three months. The incidence on females was nearly twice as great as on males, the attack rate among females having been 2·14 per 1000 living, while that among males was only 1·28 per 1000. Eastwood was the only metropolitan municipality which entirely escaped scarlet fever. Otherwise, the attack rates ranged from Manly, with an attack rate of only '24 per 1000 persons, to Rockdale, with a rate of 4·08 per 1000. The extra-metropolitan municipalities of Bankstown, Dundas, and Ermington were entirely free from scarlet fever. Between June 4th and 30th, an outbreak occurred among the customers of a Mosman dairy. Seventy-two persons were effected, but in seven cases the attack was secondary to that of some other person in the same household; thus there were fifteen primary cases. The outbreak was not of a fulminating character, as is frequently found to be the case in milk epidemics, but was rather protracted, since primary cases continued to occur from June 4th to the 22nd. A very careful examination of the employees and the persons living on the dairy was made in order to ascertain the correctness of this surmise, but no distinct evidence of such a condition could be found. Under the circumstances it is impossible to say how the outbreak originated, except that it was certainly distributed with the milk. From time to time in these annual reports, and when the occasion appeared ripe, in the daily press I have advised the domestic pasteurisation or boiling of the milk supply of households. The reasons which may be urged in support of this procedure are numerous and forcible. Not to mention innumerable outbreaks in other places, it is known that at least 5 extensive outbreaks of scarlet fever, in which a total of 158 persons were affected, 3 outbreaks of diphtheria, in which 68 persons suffered, and 4 outbreaks of typhoid fever, which affected 98 persons, have been definitely traced to infection by milk supplies in Sydney within the past ten years. Heat, as applied to milk in the process of boiling, is able to destroy the infective agents of all the diseases enumerated, and every one of those 324 persons would have escaped the attack of illness through which they passed, and which ended fatally for a good many of them, had their milk supplies been subjected to domestic boiling.

Mortality—Eleven deaths from scarlet fever occurred, of which 6 were among males and 5 among females. This is equal to a mortality rate of '01 per 1000 of the population. The case fatality equalled 1·12 per cent. of the cases notified.

Diphtheria Incidence—659 attacks of diphtheria were notified from the metropolis. The attack rate was 1·16 per 1000 persons living, and was the lowest experienced since 1902. The greatest prevalence was at Leichhardt, where an attack rate of 2·53 per 1000 was observed.

Camperdown, 2·40; Alexandria, 2·31; and Randwick, 2·13 also experienced high rates. No municipality was entirely free from diphtheria, but Kogarah, with an attack rate of ·34 per 1000, had the lowest incidence. Among the extra metropolitan districts, Bankstown was entirely free from attacks. No localised outbreaks of any importance occurred during the year, and no spread of infection was traced to milk supplies. The incidence of diphtheria was considerably greater on females than on males (1·39 compared with ·92), and was highest in the third, fourth, and fifth years of life. 19 infants under one year of age were attacked, and two persons at ages over 50 years. *Mortality*: 46 deaths occurred, or 14 more than in 1906. The corresponding death rate is ·06 per 1000 of population. One attack was fatal at over 15 years of age (male aged 25), and 6 infants under one year old died. The case fatality was equal to 6·98 per cent. of the notified cases, and was higher than in the three previous years. The case fatality among males was considerably higher than among females, so that although many more females were attacked than males the numbers of both sexes who died were nearly equal.

Typhoid Fever Incidence.—The notified attacks of typhoid fever in the metropolis were 505, an attack rate of ·89 per 1000 living. The number of attacks was 20 more than in 1906, but, with the exception of that year, it is the lowest on record, and the increase in the population of the metropolis during the year was such that the attack rate was the same as that for 1906. In individual municipalities, the greatest incidence was at North Botany, with the high attack rate of 5·93 per 1000 living. Botany, 4·46, and Hunter's Hill, 3·06, also experienced high rates. On the other hand, Kogarah, Manly, and Eastwood were extremely free from typhoid fever. In the extra metropolitan districts, Bankstown and Prospect and Sherwood were entirely free from typhoid. Between October 16th, 1907, and January 13th, 1908, 39 attacks of typhoid fever occurred in the adjoining municipalities of Leichhardt, Petersham, and Ashfield, among the customers of a dairy in Leichhardt. The total 39 cases occurred in 31 dwellings; eight cases were secondary. The course of the outbreak was rather unusual for one caused by milk. Milk epidemics are usually sudden—almost fulminating in their occurrence; whereas the present outbreak lasted just under three months (October 15th to January 13th.) Nevertheless, there can be no doubt that the milk from the dairy was the vehicle of the infection. No other condition but that of being served by a single milk supply was common to all the persons affected. In the four municipalities of Leichhardt, Petersham, Ashfield, and Marrickville, with a combined population of over 80,000, the total number of persons notified as attacked by typhoid fever from October 1st, 1907, to January 15th, 1908, was 67, of which 39 obtained their milk supply from this one dairy, while the remaining 28 obtained their milk from 25 different sources. *Incidence on dwellings.*—424 attacks occurred singly in 424 dwellings; 2 attacks in each of 22 dwellings; 3 attacks in each of 3 dwellings; and 5 attacks in one dwelling. Three attacks were contracted in the Prince Alfred Hospital, 3 in the Lewisham Hospital, 3 in the Coast Hospital, 7 in the Gladesville Hospital for the Insane, 3 in Callan Park Hospital, and one in each of the following institutions:—Sydney Hospital, the Walker Hospital, and the Deaf and Dumb Institute. Five of the persons attacked in the hospitals were nurses, and two were laundresses. Of 467 dwellings attacked by typhoid fever, which were inspected and reported on, 323 were provided with water-closets, and connected to

the sewers, 103 had pail closets, and 3 had water-closets connected with septic tanks. Of 24 of the 450 dwellings in which attacks occurred during the year 1907, it was stated by the inmates that attacks of typhoid fever had occurred in them in previous years. In two instances the previous case was in 1906, in one the previous typhoid occurred in 1904, in five previous typhoid occurred in 1903, and in 13 instances the previous typhoid was said to have occurred before 1903.

Mortality.—51 deaths from typhoid fever took place. This is the smallest mortality recorded from this cause in the district of Sydney and suburbs for at least 30 years. The mortality rate equivalent to this number is ·09 per 1000 of the population. The mortality rate from typhoid fever for the whole of New South Wales in the year 1907 was ·12 per 1000. The mortality of the male sex was slightly greater than that of the female. Only two deaths occurred at ages under five years. Of the notified attacks, 51, or 10·09 per cent., proved fatal. Attacks were very much more fatal in persons over 20 years of age than in younger persons.

Bubonic Plague.—For the seventh time bubonic plague reappeared in Sydney in 1907, and its manifestation was the most serious which has been experienced here since 1902. The number of human beings officially declared to be affected was 47, of whom 16 died. Not only did the disorder affect more human beings than it has done of recent years, its manifestation began earlier in the year than we have hitherto been accustomed to look for it; and both these phenomena, no doubt, are closely connected with the fact that the catch of plague rats never ceased throughout the previous year (1906), but continued right on to the close of that year. Neither was it confined to the wharves. The last plague rat in 1906 was taken on December 29th, from premises situated in the centre of the business part of the city. Another experience attending the outbreak of 1907 was the comparative freedom from infection of the produce stores—a circumstance owing, without doubt, to the activity of the local authority for the city in enforcing the reconstruction of those establishments in such a way, by concreting of floors, etc., as to minimise the harbour afforded by them to the rat tribe. The system of policing the city and suburbs in relation to plague, which has existed during recent years, and has been elaborated as the result of previous experience, continued in force. A rat-catching staff, controlled by the State Department of Public Health, trapped the wharves—always the first point of attack in outbreaks of plague. A similar staff, employed and controlled by the local authority for the city, constituted the second line of defence. They trapped the warehouses, produce stores, and other buildings in rear of the wharves, and also visited any buildings in the city which were reported by the public to be rat infested, or in which rat mortality was reported to have occurred. The produce stores were specially treated. Those in the vicinity of Darling Harbour were searched systematically and periodically in rotation, the fodder and grain being turned over, and the rats within it being caught with dogs. The two rat-catching staffs were instrumental in catching 29,929 rats and mice during the year, each of which was labelled with the address of the premises on which it had been taken, and was then forwarded to the laboratory of the State Department of Public Health for examination. Of the rats so caught and examined 200, and of mice 19, were found to have plague. In addition to these officially caught rodents, no less than 42,976 rats and 16,155 mice were delivered by the public at the incinerator in return for the Government bounty of 4d a head for rats and 1d for mice. The

animals caught by the public were not bacteriologically examined. A good deal of progress was made by the Harbour Trust during the year in work having for its object the rendering of the wharf frontages rat-proof. The work consists in sheeting the face of the wharfages with reinforced concrete slabs, and concreting the floors of the wharf buildings, thus materially reducing the harbour for rodents.

Tuberculosis.—The number of deaths attributed to all forms of tuberculosis in the metropolis during 1907 was 519, of which 418 were due to phthisis or consumption of the lungs, 35 to tubercular meningitis, and 66 to all other forms of tubercular disease. To these should be added 16 deaths from phthisis in hospitals for the insane, three in the sanatorium of King's Tableland, and 75 in benevolent asylums. All these deaths, though not registered in the metropolis, were those of persons ascertained to be formerly residents in the metropolis, and they, therefore, should be included amongst metropolitan deaths. These figures, being included, raise the metropolitan mortality from phthisis to 512, and the mortality from all forms of tuberculosis to 613. The compulsory notification of phthisis within the city of Sydney has now been in force for over three years, and throughout the whole of that period it has worked with absolute smoothness, and has not caused the slightest friction between either the local authority and the medical profession, nor, so far as I can gather from medical practitioners themselves, between medical men and their patients; nor has any single case arisen in which hardship to the patient appeared to have been caused. On the other hand, the investigations which followed upon notification are known to have frequently resulted in benefit to the person notified, quite apart from the benefit to other persons which must have followed the cleansing and disinfection, by the local authority, of houses vacated by consumptive persons. In several instances, cases of this disease among the very poor have been brought to the knowledge of the authorities by notification, as they would not otherwise have been, and the afflicted persons have been put in the way of obtaining suitable treatment, which they would not otherwise have had. The number of notifications of phthisis received during 1907 was 154, but 36 of these were resident outside the city, and were notified by the medical officers of city hospitals. Of the remaining 118 cases, in seven instances, no visit was paid to the notified consumptive on account of requests from the notifying medical practitioners, but the remaining 111 were all visited from this office. In the cases in which such visits were paid, verbal and printed instructions were given as to the precautions necessary to prevent the spread of infection. Subsequently, on the death of the patient, or on notification of his removal to another residence, the dwelling previously occupied by him was cleansed and disinfected by the City Council's trained disinfecting staff. During 1907, 78 dwellings were disinfected in this manner in the city after the occurrence of deaths in them from consumption, and 23 after the removal from them of living consumptives. The total number of deaths of city residents from consumption registered during the year was 93. The cost to the city of the notification of phthisis for the year (including fees paid to medical practitioners for notification, and a fair estimate for the labour and materials expended in disinfection) was £24 12s 6d. The city of Sydney is the only portion of the metropolis in which notification of phthisis is compulsory, and its population is only one-fifth that of the metropolis. It is also the only portion of the metropolis which has hitherto had the power to make by-laws for the compulsory notification of phthisis. Outside of the city, notification can be en-

forced by statute. The experience of notification in the city has been so satisfactory as to afford a strong argument in favour of its being enacted by statute in all large centres of population in New South Wales.

Infantile Mortality.—The deaths of children under 1 year of age registered in the metropolis during 1907 numbered 1393, which figure is 199 greater than the figure for 1906, and equal to an infantile mortality rate of 97 per 1000 births. The proportion borne by the infantile deaths in the metropolis to the total deaths at all ages was 24 per cent., compared with 22·4 per cent. in 1906. The most important cause of the increase in the infantile mortality of 1907 over that of the two previous years was an epidemic of whooping-cough, which accounted for 128 infantile deaths, compared with 1 death from the same cause in 1906. This epidemic raged during nine months of the year—from February to October, inclusive—and, as usual, it was particularly fatal among infants. There was also an exaggerated prevalence of measles, which caused 12 deaths among infants; but the brunt of this disease is always borne by rather older children than is the case with whooping-cough, and infants did not suffer to any great extent. The mortality among infants from respiratory diseases (bronchitis, pneumonia, etc.) was greater than it has been for some years. It is probable that the epidemic of whooping-cough was in part responsible for the heavy mortality under these heads. Deaths of infants from all respiratory diseases numbered 133, compared with 96 in 1906. Prematurity as a cause of death was also rather prominent in the year under review; 292 deaths were attributed to this cause, compared with 246 in 1906. On the other hand, there were fewer deaths from diarrhoeal diseases (diarrhoea, dysentery, infantile cholera, and enteritis), and from the causes grouped under the headings of atrophy and marasmus, than in previous years. The former group was responsible for 387 deaths in 1907, and the latter for 106 deaths, whereas in 1906 the deaths under these headings were 406 and 123 respectively. In the city of Sydney there was a continuation of measures for the reduction of infant mortality, which have been described in previous reports. The City Council's female inspector visited the homes of 1336 newly-born children during the year, advising mothers as to the feeding and general treatment of the children, and at the same time making an inspection of the premises, and noting the existence of any insanitary conditions, in order that they might be remedied.

Adulteration of Food.—Thirty municipalities in the metropolitan combined districts took some action during the year 1907 towards the suppression of the adulteration of food in their districts. The number of samples taken for analysis was 1904. These figures denote an increase of activity on the part of local authorities over those of the previous year, when only 26 authorities took action, and the number of samples purchased for analysis was 1700. The proportion of adulteration found also shows improvement, since out of the 1904 samples 245 were found to be adulterated, or 12·8 per cent., while in 1906 the proportion of samples found to be adulterated was 14 per cent. Nevertheless there is still room for very great improvement, as will appear from the following long list of local authorities which took no steps whatever during the year in the direction of safeguarding the purity of the food supplies in their respective districts:—Alexandria, Bexley, Botany, Burwood, Canterbury, Darling, Drummoyne, Enfield, Erskineville, Lane Cove, Marsfield, Redfern, St. Peters, Vacluse, Willoughby, Rookwood, Ermington, Dundas, Bankstown, Homebush, Prospect, Smithfield. The first 15 of the districts enumerated are all within the metropolis proper.

and have a combined population of 106,000 persons. Thus, nearly one-fifth of the entire population of the metropolis has been at the absolute mercy of the food sophisticators for anything that has been done to the contrary by their local authorities, one of whose primary duties is to prevent adulteration of food within their districts. The figures of the adulteration of milk, the most important in its effects on the health of the community of all forms of adulteration, show a slight increase during the year 1907 over those for 1906. Of 1516 samples of milk taken for analysis during the year, 178 were found to be adulterated. This implies a proportion of adulterated samples of 11·8 per cent., while in 1906 the corresponding proportion was 9·5 per cent. In addition to the action taken by the various local authorities in the purchasing of samples of food for analysis, I judged it necessary to take certain samples in different localities for reasons which were various. The total number of milk samples which I caused to be so taken and analysed was 66, out of which number 55 proved to be genuine, and 11 adulterated by the addition of water. The vendors of the 11 adulterated samples were prosecuted, and penalties inflicted by the magistrates in each case. Of the 66 samples, 16 were taken at the railway stations of Liverpool, Ingleburn, and Campbelltown, from cans of milk which were on their way to Sydney, where they were consigned to one or other of the large milk distributing companies. Suspicion having been aroused that some of the country producers were watering their milk, before sending it to Sydney, it seemed advisable to settle the matter by taking samples from the milk cans as they were delivered at the railway stations by the producers. Of the 16 samples so taken, 4 proved to be adulterated by the addition of water. The vendors were prosecuted and fined, and the effect upon the trade was immediately apparent. The quality of the milk reaching Sydney from those stations improved thereafter, and continued better than it had been previously to the raid.

Dairies.—The registered dairies within the metropolis numbered 401, or 1 less than in the year 1906. All were inspected at least once during the year. In the extra metropolitan districts, 159 dairies were inspected. 148 of the dairies of the metropolis are classed as "good," 238 as "fair," and 15 as "bad." In the extra metropolitan districts, 33 of the dairies were classed as "good," and 5 as "bad." The residue was classed as "fair."

Infectious Disease on Dairy Premises.—During 1907, 14 attacks of infectious disease were notified upon 11 dairy or milk-vendors' premises, including 8 attacks of typhoid fever, 2 of diphtheria, and 4 of scarlet fever. Precautions were enforced in each case to prevent the spread of infection by means of the milk. Three cases of typhoid fever occurred upon dairy premises at Leichhardt in connection with an outbreak of typhoid fever described elsewhere in this report. Otherwise, infection was not known to have been spread in connection with any of the notified cases.

Noxious Trades.—The total number of traders licensed was 279, compared with 275 in 1906. The administration of the Act and Regulations by the various local authorities of the metropolitan combined districts continues to show improvement. The number of prosecutions against offending traders was greater than in any previous year. Those instituted by local authorities (all, with five exceptions, on my recommendation) numbered 32. The municipality of Alexandria was responsible for 13 prosecutions, in all but three of which the action was taken on account of

failure on the part of the trader to destroy noxious vapours.

The Sanitary Work of the Year.—Ninety-six formal reports dealing with matters affecting the public health generally were made to the local authorities of the metropolitan combined districts by the assistant Medical Officer of Health, Dr. T. W. Sinclair, or by me. In addition to this number, 61 reports dealing with dairies, and 435 reports on noxious trades were forwarded from this office. The garbage and night-soil depôts in the various municipalities were inspected and re-inspected during the year, and, when necessary, were the subjects of special reports to their local authorities. Several complaints of special nuisances were investigated and reported on. A number of sites of proposed septic tanks in connection with dwellings or factories in the unsewered portion of my district were inspected, the plans of the installations examined, and the various local authorities concerned advised as to whether the proposed installations should be sanctioned or otherwise. A number of small outbreaks of infectious disease were investigated, and, when advisable, reported on. The extreme dryness of the summer of 1906-1907, and the consequent diminution of the flow of fresh water in George's River, resulted in an unusually large number of complaints from the inhabitants of the town of Liverpool of the condition of the river at that place. The cause of the pollution of the salt water portion of George's River is the discharge into its waters just below the dam of about 150,000 gallons daily of unpurified wool wash wastes. This pollution has continued for many years. The remedy for the nuisance lies in the effective purification of the waste waters before their admission into the river by filtration through soil or otherwise, or their total exclusion from the river. Later in the year, legal action was taken in consequence of this report by the Crown law authorities to prevent further pollution of the stream; but such action was not complete when the year ended.

Medico Legal.

Charge against a Lady Doctor.—Mr. F. C. Adrian, Acting City Coroner for Sydney, conducted an inquest last month concerning the death of a 17 months old child, which occurred in a house in Palmer-street, Woolloomooloo, on October 7th. The child had been attended by Dr. Fairfax, who gave a prescription for some medicine. This was dispensed at the Sydney Medical Mission by Dr. Elsie Browne, the superintendent, but, owing to an alteration in the labelling of the dispensary bottles, an overdose of nux vomica was given, and the child died from strychnine poisoning. After hearing evidence, the Acting Coroner gave a verdict of manslaughter against Dr. Elsie Browne. As the child's death was the result of a misadventure, and was not due to "culpable negligence and gross ignorance," the Attorney-General declined to file a bill against Dr. Browne. The verdict which was returned by the Coroner aroused an immense amount of sympathy with Dr. Browne, and we heartily congratulate her in having her character completely cleared of the stigma which was cast upon it.

Alleged Neglect.—A case of interest to the medical profession and others has just been concluded in Perth. Andrew Gunter, a miner, of Day Dawn, claimed £1000 damages from Dr. R. Earle Newton, of Perth, and Nurses Mouritz and Davis, of St. Omer Hospital, for injuries alleged to have been caused to him by the defendants through negligence. Eighteen

13 patients had definite enlargement of the glands of the neck. This fact is of interest because it is sometimes stated (erroneously, I think) that tubercular disease of lymph glands renders a person more or less immune to pulmonary tuberculosis. The previous illnesses suffered by patients were various. The most frequent was pleurisy, which occurred 21 times, next in frequency was pneumonia. Typhoid fever, diabetes, hip disease, and many others were recorded. Tubercle Bacilli: The expectoration of 111 patients was examined for the presence of tubercle germs, and in 96 of them the germs were discovered. Calmette's Reaction: Forty-one of the patients have been tested in this way, and in each case a definite reaction followed. In 36 of these cases the diagnosis had already been rendered indisputable by the discovery of the tubercle bacillus in the sputum, but in the remaining five cases the bacillus had not been found. It is in such cases that Calmette's test promises to be of value. Two patients failed to react when first tested, but they reacted when the test was re-applied. Chest Development: On making an examination of 50 patients at Kalyra I find that the circumference of the chest is on an average distinctly less than one-half the height of the patient. The mean value for the 50 cases is 0.478. It is possible that in some of our patients the narrow chest is the result of a shrunken lung, but as none of the patients had very advanced disease, I believe that at least in a majority of them the chest was naturally ill-formed. It appears, therefore, that deficient chest development predisposes to consumption, and I believe that breathing exercises might be profitably used by consumptives, and many patients have received instruction in breathing exercises. Tuberculin: Tuberculin has not been used in many cases this year. At the present time, however, nearly every patient is receiving a weekly dose of tuberculin by mouth. Drugs: Creasote, guaiacol, and various emulsions have been freely used. Inhalation: Inhalation of formalin vapour and of creasote vapour has been employed in several cases, especially in those with offensive expectoration, and for such the treatment has been useful. Treatment: Systematic graduated labour in the open air has this year largely taken the place of prolonged rest upon lounges. The patient begins with gentle exercise upon level ground, provided his temperature does not rise above 99°. He is afterwards examined, and according to the judgment of the physician the exercise is gradually prolonged and increased until the patient spends several hours a day in heavy toil, such as wood chopping or road making. I am quite convinced that this somewhat radical change in sanatorium treatment has been the chief cause of the manifestly improved results which are recorded to-day. *Report on complications involving Ear, Nose and Throat, by T. K. Hamilton, M.D., and C. W. Hamilton, M.D.:* During the past year 72 (59 per cent.) of the patients suffered from some throat complication, confined for the most part to the larynx. This number represents about the same percentage of such complications as were recorded by us during the previous 12 months. These cases we propose to analyse by dividing them, as heretofore, into three pathological groups as follow:—1st. Those in which there was well-marked infiltration with ulceration; these number six in all (8.3 per cent.). 2nd. Those in which there was hyperæmia or anæmia, with a varying amount of thickening or infiltration; of these there were 43 (59.8 per cent.). And 3rd. Those in which there was hyperæmia only, or hyperæmia in certain localities and anæmia in others. The number of these totalled 23 (31.9 per cent.). In the first group five out of the

six were males, their ages ranging from 16 to 51 years. The result recorded against three of the number is "improved"; two are "unimproved"; and the remaining one "*in statu quo*." The second group includes all those cases in which there was thickening or infiltration—20 males and 23 females. In 15 of these the thickening was fairly extensive and widely distributed, and in the remaining it was limited in extent and degree. Hyperæmia was the usual co-existing condition, but in 11 cases there was anæmia as well, for the most part of the velum palatæ; in 5 there was feeble adduction; in 1 fixation of one cord; the epiglottitis was involved in 6 cases, in two of which there was hyperæmia only, and in the remainder varying degrees of infiltration; and lastly there was chronic atrophic rhinitis fœtida in one case, the condition of the larynx in it being one of general hyperæmia with thickening of the *pars arytenoidæa*. In the third group are 6 males and 17 females. Only those cases are included in this group where there was a distinct departure from the normal condition. To make our classification complete we must include in this category those cases of the so-called "pretubercular catarrh," a condition which is a distinct clinical entity, and which not infrequently when present gives considerable help in making the diagnosis of tubercular disease in incipient and doubtful cases. Here again, as in the second group, pallor of the velum and feeble adduction are to be looked for as important additional aids to diagnosis.

MEDICAL NOTES.

Charitable Bequests and Donations.—The Brisbane Hospital has received a legacy of £875 under the will of the late H. M. Russenberger and £50 under that of the late Richard Hughes.

The eighth general meeting of the Association to Promote the Economic Interests of German Physicians was held in June at Danzig. It was announced that the association has successfully arranged 158 cases of conflict between the medical and executive officers of the sickness insurance companies, and 122 are still pending. The long conflict at Cologne is nearing its end, as the company cannot obtain medical aid outside the association adequate for its purposes. More medical positions were registered during the year than there were applicants, but 2532 places were filled by the intermediation of the association. On the other hand there were far more inquiries for location for general practice than there were places.

For the second time the rank and file of the profession have assembled to discuss matters concerning medical education and the material interests of practising physicians. The second Practitioners' Congress met at Lille, June 25th, with 1500 members in attendance, including delegates representing over 7500 other physicians—a truly national gathering. The necessity for reform in the present system of medical education in France was the main subject discussed, but much light was thrown on other themes by the various addresses, especially the dispensary and hospital abuses by the well-to-do medico-legal testimony, etc. The best fruits of these congresses, however, are said to be the growth of the spirit of organisation, the welding of the profession into a solid body, the realisation of the fact that the needs and aims of one are the needs and aims of all, and that by organising they can be obtained and realised.

PERSONAL ITEMS.

Dr. Antill Pockley, lecturer in ophthalmology in the University of Sydney and ophthalmic surgeon of the Royal Prince Alfred Hospital, has been elected president of the ninth session of the Australasian Medical Congress, to be held in Sydney in 1911.

We regret to report that Sir Arthur Renwick, M.D., of Sydney, is still seriously ill.

Dr. Herbert Throsby, after six years' practice in Bowral, N.S.W., has taken up practice at North Sydney as *locum tenens* for Dr. Isbister. During his residence in Bowral Dr. Throsby has been extremely popular both in his private and professional capacity, and has identified himself largely with the public life of the town.

Drs. J. Macdonald Gill and C. B. Blackburn have been re-elected honorary physician and honorary pathologist respectively at the Royal Alexandra Hospital for Sick Children, Sydney.

Dr. Dansey, late medical superintendent of the Royal Prince Alfred Hospital, Sydney, was entertained at dinner at the hospital by those who had been in residence with him during his three years' tenure of the office of superintendent.

Dr. Dansey has commenced practice at Strathfield, Sydney.

At a meeting of the board of directors of the Royal Prince Alfred Hospital last month, the resignation was received of Dr. St. J. W. Dansey as chief resident medical officer of the Royal Prince Alfred Hospital, as he was about to enter private practice. The board unanimously passed the following motion:—"That this board in accepting the resignation of Dr. St. J. W. Dansey as chief resident medical officer, at the close of his term of office of three years, desires to record its appreciation of the valuable services rendered by him. During his term of office he has carried out some important changes, including the increase in number of occupied beds of the hospital from 236 to 318, and in this and other directions he has not only proved himself to be a capable administrator, possessed of much tact and discretion, but an excellent medical man, and the board wishes him success in his future career."

Dr. W. Anstey Giles has resigned his appointment as honorary surgeon to the Adelaide Hospital, and has been appointed an honorary consulting surgeon.

Dr. McKelvey, who was recently appointed medical superintendent of the Royal Prince Alfred Hospital, Sydney, in succession to Dr. Dansey, entered upon his duties on November 1st.

Dr. Lloyd has been re-elected chairman of the North Melbourne Bench for the 44th year in succession.

Dr. Thacker has returned to Christchurch, N.Z., after a trip to Ireland.

Dr. Ewart resigns his position at the Wellington Hospital, N.Z., in February next to take up private practice.

Dr. D. Hastings Young has disposed of his practice at Invercargill, N.Z., to Dr. MacDonald, late of Dunedin.

Dr. R. S. E. Todd has purchased Dr. Corfe's practice at Peak Hill, N.S.W.

Dr. J. M. Stewart is leaving Lismore, N.S.W., for Queensland.

Dr. Maud Campbell has resigned the position of assistant house surgeon to the Launceston Hospital, Tasmania. Dr. Campbell intends to practice her profession in another State.

Mr. T. Brailsford Robertson, B.Sc., a graduate of the University of Adelaide, has been appointed assistant professor in the department of physiology of the University of California. Mr. Robertson has also been

singled out for distinction in being appointed to fill during 1908 a lectureship founded in the university by Dr. Herzstein, a Chicago physician. The lecturer is charged with the duty of delivering five lectures during the year on some subject of medical interest.

Dr. Alfred Lendon has started on a cruise along the Dalmatian coast in the P. & O. steamer "Saesette." At the conclusion of the tour he will spend a month in north Italy, and, proceeding to Egypt, will take a trip up the Nile, returning to Port Said in time to catch the P. & O. "Victoria" for Adelaide.

Dr. C. G. Crowley, formerly senior resident surgeon at the Melbourne and Women's Hospitals, who has recently returned from a lengthy visit to England and the Continent, was entertained at dinner by a number of friends. The toast of "Our Guest," proposed by the chairman (Dr. W. Ostermeyer), was cordially received.

Dr. Jessie Aspinall has commenced practice at 5 Lyon's-terrace, Liverpool-street, Hyde Park, Sydney.

Dr. David Grant being the only candidate nominated for the vacant seat in the Melbourne University Council, has been elected a member for a period of five years.

Dr. R. H. Todd has returned to Sydney from a trip to the United Kingdom.

Dr. H. Poate, late resident medical officer at the Royal Prince Alfred Hospital, Sydney, has passed the Primary F.R.C.S. (Eng.) exam.

Dr. Isbister, who is leaving for a trip to England, and has been long identified with the Royal North Shore Hospital, St. Leonards, was granted leave of absence by the general committee at their last meeting. Dr. Isbister purposes spending nine or twelve months partly in travel for health reasons and partly in professional studies, and hopes to return to practice in North Sydney.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Clubbe, C.P.B., M.R.C.S. (Eng.), to be a medical member of the Dental Board.

Todd, R. S. Enever, to be Medical Officer of the District Hospital at Peak Hill, N.S.W.

Steele, A. B., to be Acting Government Medical Officer for the purposes of the "Invalidity and Accidents Pensions Act."

TASMANIA.

Graham, A. W., to be Government Health Officer at Beauty Point, *vice* Dr. Davis.

Webster, L. C., to be Honorary Medical Officer at the Launceston Hospital.

VICTORIA.

Maudsley, H. C., M.D., F.R.C.P., to be Lecturer in Medicine at the University of Melbourne, *vice* James Jamieson, resigned.

Sutherland, R. Tate, M.D. (Melb.), M.D. and C.M. (Glas.), to be Honorary Visiting Surgeon to the Midwifery Department, *vice* A. Norman McArthur, resigned.

Mackay, C. V., to be Medical Superintendent of the Melbourne Hospital.

Devine, H. B., to be Surgeon to the Out-patients, St. Vincent's Hospital.

Latham, I. S., to be Physician to In-patients, St. Vincent's Hospital.

Lane, Dr., to be Physician to Out-patients, St. Vincent's Hospital. Weinberg, S. J., to be Resident Surgeon and Superintendent to the Inglewood Hospital.

WESTERN AUSTRALIA.

Robertson, L., to be Acting District Medical Officer at Cue, during the absence of Dr. Blanchard.

Chapman, Dr., has been re-appointed Junior Resident Medical Officer at Perth Public Hospital.

SOUTH AUSTRALIA.

Giles, W. A., to be Honorary Consulting Surgeon to the Adelaide Hospital.

Kidd, Leslie Stuart, M.B., B.S., to be an Honorary Medical Officer and Public Vaccinator at the Port Pirie Hospital.
 McAree, John Victor, M.B., Ch.B., of Gumeracha, to be Public Vaccinator.
 Todd, C. E., M.D., to be Honorary Surgeon to the Adelaide Hospital, vice Dr. W. A. Giles, resigned.

NEW ZEALAND.

The following persons to be Public Vaccinators for the districts ad opposite their names respectively, viz.:—

Barracough, Herbert, M.B., M.S. (Aberd.), 1894, Ashley-Clinton.
 Simpson, John Hugh, L.R.C.P., L.R.C.S. (Edin.), 1907, etc., Hororata.
 McRaddie, Percy George, M.B., M.S. (Glas.), Akaroa, vice Dr. Spong.
 Faulke, Dr., to be Hon. Surgeon, Otaki Hospital.
 Hallwright, Guy, to be Port Health Officer at Westport, vice Dr. Murdock Mackenzie, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:—

VICTORIA.

Ebsworth, Richard Henry, M.B., et Ch.B. (Melb.), 1908.

NEW SOUTH WALES.

Hanley, John Joseph, L.R.C.P., L.R.C.S. (Edin.), 1884.
 Tipping, Frank, M.B. (Melb.), 1907.
 Welch, Leslie St. Vincent, L.R.C.P. (Lond.), 1907; M.R.C.S. (Eng.), 1907.

Additional Registration.

Graham, Charles Hunter, M.D. (Durham), 1908.

BIRTHS AND DEATHS

BIRTHS.

ELWORTHY.—October 31, at Lauriston, Penrith, the wife of Dr. W. H. Elworthy—a son.
 FLECKER.—October 28th, at Subiaco, W.A., the wife of Oscar S. Flecker, M.B., Ch.M.—a daughter.
 NEWMAN.—October 3rd, at Casino, Richmond River, N.S.W., the wife of Dr. F. L. Newman—a son.
 OSBORNE.—November 1st, at the University, Melbourne, the wife of Dr. W. A. Osborne—a son.
 STACY.—October 3rd, 1908, at 28 College-street, Hyde Park, Sydney, the wife of H. Skipton Stacy, M.D.—a son.
 WHERRETT.—October 10th, "Loscombe," Marrickville-road, Dulwich Hill, Sydney, the wife of E. A. Wherrett, M.B., Ch.M.—a son.

DEATHS.

HAMILTON.—October 20th, at Adelaide, S.A., Henrietta, wife of C. W. Hamilton, M.D.
 HOGG.—October 20th, at Goodna, Queensland, Dr. James Ballantine Hogg, Medical Superintendent, Hospital for the Insane, aged 52 years.
 WEEKES.—November 15, 1908, at his residence, Collondilly, Hampden-road, Pennant Hills, Charles Jones Weekes, M.B.C.S., London, aged 46.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Mr. A. E. Durno, Sydney; Dr. Norman Dowling, Young, N.S.W.; Dr. W. E. Jones, Inspector-General of the Insane, Melbourne; The Australian Milk Ferment Proprietary, Sydney; Dr. F. A. Bennet, Sydney; Dr. J. M. Mason, Chief Officer of Health, New Zealand; Dr. J. M. Gill, Sydney; Mr. W. E. Smith, Sydney; Messrs. Beard, Watson, Ltd., Sydney; Messrs. Parke Davis & Co., Sydney; Messrs. H. A. Rose & Co., Sydney; Dr. Cleaver Woods, Albury; Dr. J. Adam Dick, Randwick, N.S.W.; Dr. A. J. Vase, Sydney; The Denver Chemical Manufacturing Co., Sydney; Messrs. Dalgety & Co., Sydney; Reuter's Telegram Co., Melbourne; Farmer's Sanitary Pan Co., Sydney; Messrs. Comill & Co., Sydney; Report of Hospitals for Insane, Queensland, 1907; Dr. A. A. Doyle, Brisbane, Q.; South British Insurance Co., Sydney; Messrs. Gordon & Gotch, Sydney; Messrs. Potter & Berks, Sydney; Messrs. Denyer Bros., Sydney; The A.M.P. Society, Sydney; Messrs. Donald Ross & Co., Sydney; Dr. A. B. Brockway, Brisbane; Mr. L. Bruck, Sydney; The Librarian, The New York Academy of Medicine, New York; Messrs. H. L. Langdon & Co., Melbourne; Messrs. Burroughs,

Wellcome & Co., Sydney; Dr. B. B. Ham, Brisbane; Dr. H. A. Wilson, 1611 Spruce-street, Philadelphia, U.S.A.; Mr. G. T. Taylor, Hobart; Dr. Taylor Young, Sydney; Librarian, St. Louis Medical Library Association; Dr. D. M. Paton, Malvern, Victoria; Dr. Hy Laurie, Melbourne; Dr. W. G. Armstrong, Sydney; Dr. H. C. Hinder, Sydney; Messrs. Felton, Grimwade and Co., Melbourne; Dr. Elkington, Hobart; Dr. A. E. Martin, Perth, W.A.; Dr. Cameron, Ipawich, Q.; Surgeon Desmond, Adelaide, S.A.; Messrs. J. Sands, Sydney; The Builder Co., Sydney; Mr. W. E. Smith, Sydney; The World Printing Co., Sydney; Messrs. Brooks & Co., Sydney; Dr. E. S. Stokes, Sydney; The Secretary, Royal College of Surgeons, London; Dr. Flecker, Subiaco, W.A.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

MEDICAL MEN who purpose applying for the position of Medical Officer to the Chillagoe or Hampden-Mt. Elliott Hospitals are advised to communicate before doing so with the Hon. Sec., Medical Defence Society of Queensland, 109 Wickham Terrace, Brisbane.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to Miss STODDART, Holmleigh, Bowral.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerio Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is cresote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 327.

SYDNEY, DECEMBER 21st, 1908.

VOL. XXVII., No. 12.

PRESIDENTIAL ADDRESS IN SECTION OF OBSTETRICS AND GYNÆCOLOGY.

(Delivered at the Australasian Medical Congress,
Melbourne, 1908.)

By E. T. Thring, F.R.C.S. (Eng.), Sydney.

I THANK you for the honour you have done me in placing me in the Position of President of this section of the present Congress. I will endeavour to show my appreciation by sparing you the infliction of a long presidential address.

The past twenty or twenty-five years have been strenuous ones, and full of events, even more for the surgeon than for the physician. The rate of progress has been almost breathless, since we, as surgeons, began to understand and appreciate the wide extent of new ground opened to us by the practical application of bacteriology to surgery, which we owe to Lord Lister.

It is just because of this rapid and restless movement of advance, which of necessity has meant many false starts, much premature generalisation, and jumping to hastily reached conclusions, that it seems worth while, from time to time, to pause and review the position, to winnow away the chaff of ill-constructed theories, and see what our real gains are in the way of solidly established facts.

We are assembled here as a section of the present Congress to discuss Gynæcological and Obstetric matters. It is when I look back to my time of residence in hospital, as house surgeon and house physician, that I realise how much has happened in the last quarter of a century. Less than twenty years ago the honorary officers in charge of the departments of Obstetrics and Gynæcology were termed honorary physicians, yet by force of the wave of advance, already making itself felt, they were *allowed* to perform certain operations.

"Gynæcology" was a thing by itself, ringed around by a fence of more or less mysterious empiricism, and the gynæcologist was looked upon with a good-natured, but almost contemptuous, tolerance by the general surgeon. Somewhat before this time, however, the beginning of abdominal surgery,

as we know it to-day, had been recorded, and the pioneers were gynæcologists, who, even before the work of Lister, enabled us to regard the peritoneum as a friend, and not as an enemy to be feared, had ventured to deal with abdominal and especially pelvic tumours, not in an accidental way, but by carefully planned operation. In this connection the names of Ephraim MacDowell and Spencer Wells can never be forgotten. Gynæcologists showed the way, but instead of grasping the full significance of the situation, and realising that a new era had commenced—that gynæcology was only a part of the much wider field of abdominal surgery—the gynæcologist of twenty years ago allowed himself to be, as it were, pushed back into the female pelvis by the general surgeon, and was told to stop there, which he did, hampered and tied by tradition.

I am well aware that the views I hold are regarded as unorthodox by some gynæcologists, and by many general surgeons; in fact, I almost feel that I am here under false pretences when I say that there should be no such person as the gynæcologist pure and simple, but that we should look upon abdominal surgery as our field, of which the "diseases peculiar to women" form a part only, but a very important part. The most serious and important operative procedures in gynæcology are some of the most difficult of abdominal operations. The technique required in dealing with the lower part of the abdominal cavity and its contained organs is precisely the same as that required for the upper part of the abdomen. The gynæcological operator must be prepared to deal with pathological conditions, not only involving the uterus and its appendages, but also the vermiform appendix; he must be prepared, if necessary, to perform various operations upon the intestinal canal, for instance, enterostomy, enterectomy, and intestinal anastomosis. It seems to me to be utterly illogical that, because of tradition, he should be expected not to extend his field of operation higher than the umbilicus. When gynæcology is more generally recognised as being simply a part of abdominal surgery, then we shall get even better results than we do now. It will mean that, as a wider view is taken, the

necessity for a wider and more thorough training as an abdominal surgeon will be recognised. It is surely time for us to realise that the surgery of the female pelvis and generative organs is based upon the same general principles as those which guide us in dealing with diseases of the appendix, of the gall-bladder, of the stomach, or the kidney, not only of a woman, but of a man.

Most people will, I think, concede that to deal satisfactorily and successfully with pathological conditions inside the peritoneal cavity requires a special and prolonged training. By "successfully" I do not mean that the patient leaves the operating table alive, and then goes through a prolonged and tedious convalescence, with possibly one or more reappearances upon the operating table during that time, but that the operative procedure, having been carefully thought out and planned, is so executed by a trained hand that, in the vast majority of cases, the convalescence is rapid, and the "cure" a real one. If such a view were more generally taken of gynaecological work, advance would, I believe, take place on surer lines—there would be fewer instances of jumping to conclusions on insufficient evidence. New and, as their authors believe, improved operative procedures would be less numerous, but they would stand the test of time and experience, instead of having a vogue for a relatively short period, and then fading into oblivion simply because they were originated as the result of a lack of knowledge of facts and of the general principles which should be the groundwork of all surgery.

It is easy to give instances of such badly conceived work. Take the operation of suspension of the fundus uteri to the anterior abdominal wall in cases of simple retroversion and flexion of the uterus, uncomplicated by pelvic adhesions, or that of anterior vaginal fixation in similar cases. In both instances gross and quite unnecessary anatomical violence is done, and there is an utter failure to realise that surgery, to be good and sound, must, first of all, be on conservative lines, as far as the condition calling for interference allows. The same lack of knowledge, and of wide and sound training, leads to the condemnation of methods which in themselves are sound and give good results, because the underlying reasons are not thoroughly understood. For instance, no operation, provided it is properly done and the case properly selected, gives better and more permanent

results than that of shortening the round ligaments in the inguinal canals when applied to certain suitable cases of retroversion and flexion of the uterus. But how often has it been done in an utterly unsuitable case, possibly where pelvic adhesions existed, fixing the uterus? A bad and unsatisfactory result followed, and the operation was condemned instead of the operator. Again, 13 years ago, when a more radical and logical operative treatment of uterine cancer was advocated—practically an identical procedure to that now known as "Wertheim's operation"—it was tried by some operators, who were not possessed of the necessary anatomical knowledge, with, of course, disastrous results; and, as a consequence, the operation was condemned by these gentlemen. It was said that the operation, as at first suggested, and soon afterwards carried out, was impossible for anatomical reasons, also that it must, if done at all, result in an appalling primary mortality, and so was condemned, practically without trial, except by its first advocates, until, some six years later, it was brought into prominence and established by Wertheim, who, it should be remembered, had previously been a strong opponent. It is interesting now to see papers written in support of "Wertheim's operation" by gynaecologists who, 10 or 12 years ago, had nothing but condemnation for any operative treatment of uterine cancer than either sharp-spooning, supra-vaginal amputation of the cervix, or vaginal hysterectomy. Had these gentlemen possessed the requisite anatomical knowledge, as well as a wider training in pathological anatomy and in the principles of surgery, they would probably have adopted the more radical method years ago, and so many unfortunate victims of uterine cancer, upon whom less radical methods were practised during those years, and in whom recurrence took place, would, at all events, have had a far better chance of non-recurrence.

I would plead, therefore, for a broader standpoint, and a wider and more thorough training in connection with matters gynaecological. There is surely room for improvement when one can look around and see the results of ill-planned and badly carried-out operations, more especially in abdominal and gynaecological work. How often does one see disastrous results following upon a lack of knowledge of anatomical facts and of pathological processes, even as far as they are at present known and understood!

We are so accustomed to be told of the wonderful strides that have been made during the past 20 years that there is perhaps a danger of our becoming complaisant and self-satisfied—and this is my justification for asking you to look at the other side.

There is, it seems to me, a great deal of slovenly work done, characterised by a lack of thoroughness, and we as surgeons suffer as well as our patients, although in a different way. Again, a fashion has arisen of late years which can, I think, only be condemned by those amongst us who are really thoughtful for the best interests of our patients, towards whom we are placed in a position of trust. I refer to that truly deplorable practice which has become so general amongst operators, namely, operating against time. While fully recognising that, in abdominal work especially, there should be no waste of time, no unnecessary prolongation of intra-abdominal manipulations, or of the time during which the patient is under the influence of anaesthesia, I do most strongly maintain that the only clock against which we should work is the patient's heart. This applies both to operations done under general anaesthesia and spinal analgesia. Provided that the patient's condition allows, all work should be thoroughly done and carefully finished. If this be so, the final and remote results of abdominal operations will be far more satisfactory to the patient than is now so frequently the case. Unfinished work inside the peritoneal cavity leads to post-operative discomfort and pain, and not seldom to the necessity for a second operation where the one should have sufficed. Careless suturing of the abdominal wall is still a cause of ventral hernia, a thing which should be of extremely rare occurrence.

As a double instance of the faults about which I have just spoken, I will refer to a case which recently came under my own observation. A patient came into my hands whose appendix had been removed some four or five years ago by a well-known surgeon in England. It was, in the first instance, a perfectly simple appendicectomy—no concretion, no supuration or gangrene of the appendix. The patient was in a position to obtain the best possible surgical and nursing skill. The operation was done, and immediately afterwards the operator interviewed the waiting friends, reassured them as to the safety of the sufferer, and proudly called attention to the fact that a bare 20 minutes had elapsed from the time of the patient's entry into the oper-

ating room and his, the operator's, departure from it. He also specially emphasised that "his method" was superior to that usually adopted, inasmuch as it assured the restoration of the abdominal wall to practically its former condition of strength, so avoiding the risks and inconveniences of post-operative hernia. The wound did not heal by "first intention." There was more or less continuous discomfort about the scar region up to the time of the second operation. On examining, I found a cicatrix six and three-quarter inches in length over the outer border of the right rectus muscle; there was a small hernial aperture towards the lower end. On operating for the second time it was found that the original suturing had been done in such a way that the anterior layer of the rectus sheath had not been secured at all, the inner cut edge had retracted inwards, and careful dissection was required to secure and free it. There were also adhesions between the cæcum and the peritoneal aspect of the cicatrix. Had the operator been more intent upon doing careful and finished work than upon speedy operating the result would most probably have been perfectly satisfactory both to the patient and surgeon. Instead of this, the patient not unnaturally feels a grievance against the first operator, and has had to submit to the risks and inconveniences of a second abdominal section.

How often does one hear the remark, "Ah! but you should see 'So-and-so' do a Hysterectomy in (say) fourteen minutes," as though that was the principal object for which the operation was done, rather than that the patient should not only make an immediate recovery, but should be well and free from troubles and disabilities as the result of the operation at the expiration of five, ten, or more years.

The anatomical arrangements of the parts dealt with in gynaecological work are so complex that, in order to do truly conservative surgery, there must be no hurry and undue haste, as opposed to carefully finished, but rapid, work, unless the operator is driven by the exigencies of the patient's general or cardiac condition. Too often, I fear, the principle that all good surgery must be on conservative lines is forgotten. By conservative surgery I do not mean the preservation of a hopelessly damaged organ, or part of an organ, that is bad surgery, but the minimum amount of interference really required, together with the most complete restoration

of the normal anatomical relations of the parts forming the area of operation, as is possible to the surgeon under the circumstances of each individual case. To do this one must be prepared to modify the general plan of operation in each case, and this involves an accurate knowledge of anatomical facts and general surgical principles, as opposed to the servile carrying out the "steps" of an operation as written and recorded by any individual teacher of surgery.

Each one of us goes through a process of evolution. At first, he probably does as others tell him—he copies. Some stay at that; others progress, or, at all events, strive to do so. They do not remain satisfied with things as they find them, but strike out on new lines; then it is that the personality tells, and also the nature, as to extent and thoroughness of the preliminary training. If that training has been sufficiently wide and sound there will be real progress, and very few false leads will be made. There will be no premature generalisation, but a careful ranging of ascertained facts leading to accurate forecasts, and the net result will be progress, and benefit to our patients.

For instance, many of us were trained up with a firm belief that pessaries of various kinds and types were a necessary and constant factor in the proper treatment of uterine displacements, more especially retro-displacements, and the various degrees of prolapse. Now, with some of us, it is the rare exception to use a pessary. We realise that there are other and far more satisfactory means of dealing with such cases, and moreover, that it is only in a very small minority that cures can be effected by these means. We go a step further, and understand that, in very many such instances of uterine dislocation, a woman so suffering may be made comparatively comfortable for years, even up to the meno-pause; yet a real cure has not been effected. For when the atrophic changes which accompany the meno-pause take place, the pessary—no matter of what kind—becomes more and more inadequate, and the unfortunate woman suffers from that most miserable condition—uterine and vaginal prolapse, more or less complete. Had a properly planned scheme of operative treatment, based upon accurate anatomical knowledge, and designed to restore, as far as possible, the damaged and dislocated organs to their normal state and position, been done years before, the final condition of misery

would not have been reached, and a much less severe surgical procedure would have sufficed than is now required, and also at a time of life when the patient was better able to stand it. Besides which, years of suffering and discomfort would have been avoided.

I fear that you will look upon me as a rank pessimist should I continue to speak as I have been doing, therefore let us turn to the probable—nay, certain—direction in which we must look for advance in the future.

It almost seems, although it would be rash to attempt to speak dogmatically, as though we had nearly reached the limits of purely operative procedure within the abdomen.

Future progress must, to a great extent, lie in the perfection of our technique, and in the utilisation of the knowledge placed at our disposal by the work of the bacteriologist.

Such work as that of Sargent and Dudgeon on the "Bacteriology of the Peritoneum" is invaluable to us as abdominal surgeons. It is becoming more and more obvious that, as Gynæcologists and Obstetricians, the more we know about bacteriology and serum therapy, the better we shall be able to cope with the various infective processes which are associated with peritoneal surgery and post-partum conditions. As far as obstetrics are concerned, the details of labour and the necessary manipulations are not likely to alter in our time. Progress and improvement in obstetrics must be sought in the improvement of our patients' environment, and especially in the treatment of the septic accidents which, even now, too frequently follow what is a normal physiological function. Here it seems that our line of progress must be made under the guidance, and with the co-operation, of the bacteriologist. I am glad to see that, in our programme of proceedings the question of the treatment of post-partum sepsis is to come up for consideration and debate.

By the assistance of the bacteriologist, we are enabled to ascertain with absolute accuracy the nature of the organism which, in any case of post-partum sepsis, is at the root of the trouble. While by no means losing sight of the primary importance of prevention, as applied to the septic accidents of the puerperium, nor to the great value and absolute necessity of carefully planned and executed surgical treatment, an accurate knowledge of the nature of the invading micro-organism is of the utmost use and importance. It enables us to be far more sure in our prog-

nosis, if we know whether the infection is due to a staphylococcus or a streptococcus. Also, we are now in a position to utilise the vaccines suitable to each individual case; and although we are only upon the threshold of Serum Therapy, still, even now, it has proved to be an invaluable aid in the treatment of these most serious and distressing cases of post-partum sepsis.

Gentlemen, I promised that my remarks should be brief; I will therefore conclude by summarising thus:—It is necessary that we should reconsider the position of gynaecology and obstetrics—*First*, as to its relation to general surgery and medicine; *secondly*, as to the training necessary for those who practise it; and, *thirdly*, as to the probable line or lines of advance in the immediate future.

I am quite well aware that the position I have taken, and the views I hold, will not meet with general acceptance, at all events now, but I am convinced that progress and development will take place, and continue along the lines I have indicated.

PRESIDENTIAL ADDRESS IN THE SECTION OF DISEASES OF THE SKIN, RADIOTHERAPY, &c.

(Delivered at the Australasian Medical Congress, Melbourne, 1908.)

By W. McMurray, M.D., Hon. Dermatologist, Sydney Hospital.

IN welcoming you to this, the first sectional meeting of Dermatology and Radiography, of which I have been elected president, I desire to express my grateful appreciation of the honour which has been conferred upon me. It appears to me that we are at a very interesting and important period, for this is the first time in our history that a section has been devoted to these special branches. The general tendency is to specialise in all branches of medicine and surgery, and it must be admitted that concentration of effort leads to a high degree of excellence. This applies to all trades. There are, however, a few men who consider themselves exceptionally endowed with brains, and who pose as universal specialists. No matter what speciality a man takes up, a solid groundwork of general knowledge of medicine in all its branches is essential, and this more particularly applies to dermatology. It has been said, "He is the best dermatologist who is the best physician." Our speciality is one capable of throwing light in many directions on diseases in less

accessible parts. Much to us is within ready reach, and full inspection, and can be examined microscopically during life. Nowhere else in the domain of medicine can one learn so much, and with such exactness of the nature of disease, its remote and immediate causes, and method of cure. We claim for diseases of the skin a foremost place as a branch of scientific medicine, and without hesitation I assert it, beyond all others offers attractions to the student of general pathology. It is evident that, in England at any rate, it has gained its proper position as a department of medicine, worthy of special study and practice, when his Majesty the King conferred the honour of knighthood on a leading dermatologist, Sir Malcolm Morris. In order to become anything approaching an expert in diseases of the skin, the power of accurate observation must be cultivated to a high degree. An atlas can teach but little; one must see and feel the lesion in the living subject. Not long ago I saw a young man suffering from a gumma of his leg, and I noticed he had half his tongue removed for cancer (*sic*). What a tragedy! Can you imagine anything more important than diagnosing a specific lesion on the skin? If these conditions were recognised early, and the diathesis properly treated, it would reduce the number of inmates in our asylums, and save much suffering. Dermatologists must necessarily be limited to the large centres. The family physician, however, should have a fair knowledge of diseases of the skin, as they frequently crop up in general practice. In small towns, and in vast sections of this great country, the doctor constitutes the only available authority in every disease. How important it is that he be familiar with the treatment of the commoner forms. Frequently one sees lupus mistaken for rodent ulcer. If the latter were properly excised at the beginning, disfigurement and danger of recurrence would be avoided.

I think the time has arrived when the study of skin affections should be made compulsory in the curriculum. Only a short time ago one of the students in Sydney was confronted with a case of scabies, and he questioned the right of the examiner to examine him on this class of complaint. This is not a desirable state of affairs. Examiners themselves should be alive to the fact that the study of diseases of the skin occupies an extremely important position in all large medical centres.

It occurred to me that it might be of interest to compare some of the more common diseases occurring here with those in England, and to glance at one peculiar to our climate.

I am aware that statistics require a good deal of qualification, especially in hospital practice. Frequently cases are only partially cured, and are lost sight of for a time, and are re-registered as new cases. Then, again, syphilis and lupus often go to the surgeon. In private practice this to a large extent is overcome. The patient would not be counted twice, because he came in a different year. So private statistics are more reliable. In my private practice lupus vulgaris is extremely rare—most of the cases seen are imported. It occurs in $3\frac{1}{2}$ per 1000, against 10 per 1000 in England. Lupus erythematosus is less than half as common. 38 in $2000 = 1.9$ per cent.; 127 in $5000 = 2.54$ per cent. I think it commences here at an earlier age; it is not unfrequent to see well marked cases at 15. Many of my cases I could trace to traumatism, scratches, blows, etc.

Rodent ulcer is an extremely common disease with us, and frequently begins in early life. In one patient of mine, aged 16, it commenced on a mole following the application of lunar caustic. Comparing my own with Crocker's statistics, I find he had only 14 in 10,000 hospital cases, 34 in 5000 private; whilst here I had 108 in 7000 hospital and 50 in 2000 private cases.

A fairly common disease with us is a keratosis, which occurs on exposed parts, as the face, neck, back of hands, and forearms, especially in fair people who sunburn easily. It commences as a dry, greyish, scaly, patch, pin head to split-pea in size, raised above the skin, rough to touch, and when scraped off leaves a bleeding surface. The scale quickly reforms, and the patch gradually enlarges. The lesion may remain stationary for a long time, but frequently takes on a malignant action, and if not dealt with in a radical manner may involve the neighbouring glands, which may require an extensive surgical operation, and may even end in death. There is no doubt strong sunlight accounts largely for these conditions. It destroys the tubercle bacillus, and therefore lessens the tendency to lupus vulgaris, but acts as an irritant causing the keratosis. Until a few years ago, scabies was a rare disease, now it is quite common. Syphilis, which plays a very important role in the practice of every dermatologist, is very prevalent in Australia. My statistics compare in an alarming way with

those of Crocker. In his hospital practice it occurs 5.4 per cent., in private 2.54 per cent., as compared with mine, 12.5 per cent. in hospital, 8.65 per cent. in private.

"In quoting from the Blue Book of the Navy on venereal disease for the year 1906, the Australian station reaches the top compared with other naval stations. The case ratio under this heading (venereal disease) was 214.75 per 1000, an increase of 58.57 as compared with last year, and of 56.75 in comparison with the average ratio for the last nine years. Sydney is mentioned by nearly all the medical officers as the place where those diseases are most prevalent, and during the year enquiries were set on foot to devise some measures to check the pest in this port. It is worthy of note that Brisbane, where a modified Contagious Disease Act is in force, is practically free from these diseases; and the Medical Officer of the "Pegasus" reports that Noumea, where the French authorities rigidly enforce a Contagious Diseases Act, not a single case was contracted, although leave was freely given to the crew during all days of visit of the ship to this port."

Now let us glance at the modern advances in our own speciality. Like all other branches of medicine, it has made rapid strides—I might mention the discovery of the tubercle bacillus by Kock. Bacillus of Lepa by Hanson, the spirochetæ pallida of Schaudin, Finsen's method of treating lupus by light, discovery of radium by Curie; the various serums and opsonic treatment by Wright; liquid air; liquid carbonic dioxide gas; Bier's local hyperæmia; Sabourand's research on ringworm; spirochetæ pertenuis of jaws by Castellani, and last, but not least, the X-rays. The X-rays were discovered in 1895 by a physician, Professor Roentgen, of Wutzbouurg, and applied therapeutically for the first time by Freund and Schiff of Vienna in January, 1896, for removal of a hairy mole from the back.

Since this epoch these applications have extended all over the world. The rays have been applied more or less to all kinds of skin, and many internal diseases. They have a selective action for the hair papillæ, cancerous cells, and pathological tissues in general. Their use in diagnosis of fractures, location of foreign bodies (almost at once) became general. At this early period there was no guide to the technique of their application, or means of measuring the dose or quality of the rays. As a result indifferent effects were

obtained, or results which were disastrous to the patient. The first distinct advance was made by Kienbock in 1900. He demonstrated that the rays from a Crookes' tube possessed certain special qualities independent of concomitant and electrical phenomena. He pointed out the great importance of the molecular tension of the tube, and described the hard and soft tube. Then Béclère devised the spintometre, which gives approximately the degrees of penetration of the rays. Their exact value was made known by Benoit's radiochromometer. In 1902 Hotz-necht, at the Congress of Radiography at Berne, made known his pastilles, by which we are able to estimate the quantity of X-rays absorbed. As time went on the construction of the tubes became more perfect. The tubes first employed were very primitive. They could not be regulated. Soft at first and rapidly becoming hard, so that in a short time they became useless. These were replaced by tubes which could be regulated, or maintained constant, i.e., Muller, or more recently, Chaband's, which is still more perfected by Villard's osmo regulator.

Leaving the stage of empiricism, in a few years we see radiography develop into an exact science, and we have to-day in it an extremely active therapeutic agent, which in the hands of experienced men has little danger attached to it. There is no doubt the triumph of the future will be the production of rays of greater penetrative power, which will be of value in deep seated diseases. Like all other new re-agents it has been much abused. The application of the X-rays can only be properly made by a medical man, who has become expert in their use, and who has familiarised himself with the lesions suitable for their application. Unfortunately there are members of our profession, occupying distinguished positions, who do not hesitate to send their patients for X-ray treatment, diagnosis of fractures, location of foreign bodies, etc., to unqualified persons, when qualified men, who have devoted their entire labours to this speciality, are available.

Balmain Hospital Collection.—A street collection in aid of the funds of the Balmain and District Hospital was taken up in Balmain last month and realised £73, an increase of about £20 on that of the previous year. The collection was, as before, taken up under the direction of the hospital collection committee.

SOME APPLICATIONS OF THE PRECIPITIN REACTION IN THE DIAGNOSIS OF HYDATID DISEASE.

By D. A. Welsh, M.A., B.Sc., M.D.; H. G. Chapman M.D., B.S., and J. C. Storey.

(From the Physiological and Pathological Laboratories of the University of Sydney.)

Results previously obtained.—In January, 1908, two of us* published an account of our experience with the precipitin reaction in hydatid disease, and quoted nine consecutive and unselected cases of hydatid invasion in all of which a well-marked precipitin reaction was obtained. In eight of these cases blood from the hydatid patient was collected in sterile glass pipettes on the morning of the day of operation; the hydatid fluid or cysts were obtained in sterile flasks in the afternoon; the patient's serum and the hydatid fluid were allowed to stand overnight in a cool chamber, and the test was made next morning about 24 hours after the blood had been collected. Control sera from healthy persons were taken at the same time as the sera to be tested and were kept in the same manner. From 6 to 12 drops of serum were shaken up with 1 c.c. clear hydatid fluid, precautions to minimise bacterial infection being taken, and the tubes were allowed to stand 24 hours at room temperature before the precipitates were read. In these circumstances, with one exception, the patient's serum never failed to give a positive reaction with the hydatid fluid removed from his tissues. The single exception, however, yielded a precipitate when the patient's serum was tested with the hydatid fluid obtained from another patient. While this was our usual procedure, we also tested the serum of some of the patients, collected before operation, with hydatid fluids taken from other patients, and we obtained positive precipitin reactions in cases in which subsequent operation revealed undoubted hydatid invasion, and negative precipitin reactions in doubtful cases in which at operation hydatid cysts were not found. Notwithstanding our small series of cases, the fact that in every instance the presence of the reaction corresponded with the presence of hydatid cysts, and the absence of the reaction with the absence of cysts, led us to the conclusion that in the precipitin reaction we had a valuable aid to the diagnosis of hydatid disease. We must, however, emphasise the

* Welsh and Chapman, *Austra. Med. Gazette and Lancet*, 1908.

fact that this striking evidence of the correlation of a specific precipitin reaction with hydatid invasion was obtained in the most favourable conditions of experiment, since usually the serum and the hydatid fluid were taken from the same patient and tested within 24 hours, or, when the serum and the hydatid fluid were obtained from different patients, the hydatid fluid had not often been kept for more than a few days.

Object of present paper.—It was obvious, however, that if the test was to be of general value as a means of diagnosis, we must have a method of storing for considerable periods of time hydatid fluid in such a form that it would be capable of giving a well-marked reaction with the sera of patients suffering from hydatid disease, and that it would not yield any reaction with sera obtained in other conditions of disease. Our present communication, which is of the nature of a progress report, deals mainly with the interactions of hydatid fluids (a) not derived from the patient whose serum was being tested, (b) of longer standing than those used in our first series of cases, and (c) subjected to various treatment in order to preserve them in a sterile condition for many months. The conditions of experiment were, therefore, less favourable than in our first series of cases, and we may at once state that in this second series the amount of the precipitin in positive cases was on the whole smaller than in our first series, and that some cases of hydatid invasion failed to give a satisfactory reaction with the hydatid fluids employed by us. Nevertheless, in no single instance did we obtain a positive reaction where hydatid invasion was afterwards proved not to exist, and we were able to give a positive diagnosis in some cases in which the clinical evidence was on the whole opposed to the probability of hydatid disease, our diagnosis being confirmed by subsequent operation.

Data on which paper is based.—Exclusive of control observations, this paper is based on 50 precipitin reactions tested in regard to 36 patients known or suspected to harbour hydatid cysts. Of these patients, 20 were definitely proved to be infested by hydatids and 30 precipitin tests were carried out in regard to them, in addition to the usual controls. The analysis of these 30 reactions, the nature of the hydatid fluids employed, and the results obtained constitute the substance of our paper. We may note, however, that of the other precipitin tests, 11 were con-

ducted with the serum of 10 patients from whom hydatids were in all probability absent, since an operation, or the subsequent history, revealed the presence of some other condition (new-growth, suppuration, calculus, etc.) sufficient to account for the symptoms. In all of these cases the precipitin reactions were negative. The remaining 9 precipitin tests were made with the serum of 6 patients in whom an operation, or the progress of the case, was inconclusive as regards the presence or absence of hydatid invasion. Of these doubtful cases, two gave a slight positive reaction, and four a negative reaction. Since the diagnosis was doubtful, we have not dealt further with this group of cases.

List of 20 cases investigated in which conclusive evidence of hydatid invasion was obtained at operation or otherwise:—

Case 1. R., male, 23 years; large single cyst of liver with clear contents.

Case 2. F., female, 40 years; multiple suppurating cysts of liver.

Case 3. H., female, 24 years; hydatid of liver.

Case 4. A., male, 39 years; multiple cysts in muscles of back, cysts densely matted and packed with minute secondary cysts.

Case 5. D., female, 12 years; multiple cysts of kidney.

Case 6. T., female, 26 years; large cyst of liver with clear contents.

Case 7. K., male, 26 years; multiple cysts in kidney of at least ten years' duration.

Case 8. L.R., male, 69 years; multiple small cysts in liver.

Case 9. F., male, 39 years; cyst on under surface of liver, compressing portal vein and simulating cirrhosis of liver.

Case 10. B., female, 18 years; large cyst of liver with clear contents.

Case 11. P., male, 31 years; cyst behind liver.

Case 12. M., male, 11 years; suppurating hydatid in left iliac region.

Case 13. L., male, 42 years; large cyst of liver with clear contents.

Case 14. L., female, 50 years; large, shrunken, degenerated cyst of liver with caseous, bile-stained contents.

Case 15. W., female, 28 years; medium cyst of liver with clear fluid contents.

Case 16. W. male, 42 years; hydatid of liver.

Case 17. H., male, 35 years; hydatid of lung (?); no operation was performed, but patient coughed up a piece of tissue which we identified as hydatid membrane.

Case 18. W., female, 12 years; cyst of liver with clear fluid contents.

Case 19. R., female, 49 years; multiple cysts of liver, spleen and peritoneum.

Case 20. H., male, 22 years; large cyst of liver with clear contents.

Analysis of the precipitin reactions obtained with various hydatid fluids, tested with the sera of the patients in whom the presence of hydatid cysts was conclusively proved.—The tests may be arranged in the following groups, according to the nature of the hydatid fluid employed in the interactions:—

GROUP I.—In this group of seven tests we repeated the methods adopted in our previous investigation of allowing the serum of the patient to interact with the fresh untreated hydatid fluid taken from the cysts harboured by himself, or with similar fluid collected from another patient. In every instance but one definite evidence of a precipitate was obtained in 24 or 48 hours at room temperature. In two cases the precipitate was very slight, but distinct in comparison with the control tubes; in two cases the precipitate was well marked, and in two it was massive. In one case of long-standing hydatid invasion (case 7) the reaction was indeterminate.

(1) 1 c.c. fresh hydatid fluid from case 4 interacting with 9 drops serum from same case taken just before operation gave a well-marked precipitate.

(2) 1 c.c. fresh hydatid fluid from case 6 interacting with 9 drops serum from same patient before operation gave a slight positive reaction.

(3) 1 c.c. hydatid fluid from case 6 passed through Chamberland filter interacting with 16 drops serum from same case seven days after operation yielded a very large precipitate of 4 mm. depth.

(4) 1 c.c. fresh hydatid fluid from case 7 interacting with 12 drops serum from same case collected before operation gave an indeterminate reaction.

(5) 1 c.c. fresh hydatid fluid from case 7 interacting with 12 drops serum taken before operation from case 8 gave a well-marked reaction.

(6) 1 c.c. hydatid fluid from case 18, collected sterile and kept on ice, interacting with 11 drops serum, taken from same case five days after operation, gave a large precipitate exceeding 2 mm. in depth.

(7) 1 c.c. hydatid fluid from case 18, kept sterile on ice for five days, interacted with 11 drops serum from case 19 before operation and gave a slight positive reaction.

GROUP II.—The tests in this group were conducted with the fluid obtained from a large hydatid cyst of the liver in case 1. The clear fluid was passed through a Chamberland filter, became accidentally infected and was filtered again, thereafter remaining sterile. After the second filtration, and six days after removal from the patient, quantities of the fluid amounting to 3 c.c. and 4 c.c. were put into sterile tubes, without further addiment, the tubes were plugged and allowed to stand at room temperature. It was then noticed that a deposit began slowly to separate out from the hydatid fluid. For a few days no deposit was seen at the foot of the tubes; by the end of a week a slight trace of deposit was visible; by the end of a month well-marked deposits were present, the fluid remaining quite sterile. With this fluid was tested the serum from each of two hydatid patients (other than the patient from whom the fluid had been obtained), but in each case the result was indeterminate, since the deposit was too scanty to warrant a positive diagnosis being made. Owing to its failure to elicit definite precipitates from the sera of two hydatid patients this fluid was discarded.

(1) 1 c.c. hydatid fluid from case 1 as above, six days after removal, interacted with 12 drops serum from case 2, collected one month after operation, while small cysts continued to drain away from the wound. A large quantity of serum was obtained, and four similar reactions investigated, tubes being allowed to stand at room temperature for 24 hours, at 37° C. for 1 hour, at 45° C. for 1 hour, and at 60° C. for 1 hour, but in every case the result was indeterminate.

(2) 2 c.c. hydatid fluid from case 1 as above interacted with 8 drops serum from case 3 before operation, but again the result was indeterminate.

GROUP III.—A saline extract of hydatid membrane was used in the third group of tests. The membrane was dried in a desiccator over calcium chloride and at a temperature of 37° C. Six grammes of dried membrane were ground up in a mortar and extracted for 48 hours with 300 c.c. of a 0.75 per cent. sodium chloride solution. The extract was then passed through a Chamberland filter. With the filtered extract was tested the serum from each of four hydatid patients, but in each case with negative results. It must be added, however, that in one instance, (case 5), the serum was not tested until three weeks after operation, and only 4 drops were obtained; in another instance (case 6), the

serum before operation gave only a slight reaction with the fresh hydatid fluid from the same patient; in a third (case 7), the reaction of the serum with the fresh fluid from the same patient was indeterminate; and in a fourth (case 13), the serum was not otherwise tested.

(1) 1 c.c. extract hydatid membrane interacted with 4 drops serum from case 5, collected three weeks after operation while cysts were being still discharged, and gave a negative reaction.

(2) 1 c.c. extract interacted with 9 drops serum from case 6 before operation, to give a negative reaction.

(3) 1 c.c. extract interacted with 12 drops serum, taken before operation from case 7, with a negative result.

(4) 1 c.c. extract interacted with 9 drops serum from case 13, and gave a negative reaction.

GROUP IV.—The tests in this group were carried out with the hydatid fluid obtained from a liver cyst in case 6. The clear fluid was passed through a Chamberland filter, and thereafter remained sterile. It was stored in small flasks, and, after the lapse of a month, it was noticed that an abundant flocculent deposit had separated out in all the flasks, the superfluid remaining clear and sterile. This fluid had been tested with serum from the same patient one week after operation, and gave a very large precipitate (*cf.* group I, No. 3.) It was then used for purposes of diagnosis, to test the serum taken before operation from seven different hydatid patients, and gave distinct positive reactions with four of these, and indeterminate reactions with the remaining three, in one of which the only cyst found was shrunken and degenerated. In two of the positive cases the circumstances were of more than usual interest. In case 9 two separate precipitin tests were made in each instance with definitely positive results. Nevertheless, operation was delayed because the clinical signs pointed so strongly to cirrhosis of the liver. Later on, however, an operation was performed, and a hydatid cyst was found on the under surface of the liver, compressing the portal vein. Again, in case 11, a positive reaction was obtained, but at the first operation no lesion was found, and the wound was closed up. A second precipitin test gave again a positive reaction, and a second operation was performed, when a hydatid cyst behind the liver was found.

(1) 1 c.c. fluid from case 6, one week old, interacted with 12 drops serum from case (7), before operation, and gave a slight positive reaction. The serum from this case (7) gave a negative reaction with extract of hydatid membrane (*cf.* group III, No. 3), and an indeterminate reaction with the hydatid fluid from the same patient (*cf.* group I, No. 4).

(2) 1 c.c. hydatid fluid from case 6, one month old, interacted with 10 drops serum taken before operation from case 9, and gave a decided positive reaction. Operation was delayed (*v. supra*), and the test was repeated with similar results.

(3) 1 c.c. hydatid fluid from case 6, two months old, interacted with 13 drops serum taken before operation from case 10, but only a very slight precipitate was obtained, and the result was indeterminate. A few days later the test was repeated, but the result was still indeterminate.

(4) 1 c.c. hydatid fluid from case 6, two months old, interacted with 8 drops serum from case 11, before operation, and gave a slight positive reaction. At the first operation, no lesion was found, and the test was repeated with again a slight positive reaction. A second operation revealed the presence of a hydatid cyst (*v. supra.*).

(5) 1 c.c. hydatid fluid from case 6, two months old, interacted with 13 drops serum taken before operation from case 12, to give a slight positive reaction.

(6) 1 c.c. hydatid fluid from case 6, four months old, interacted with 11 drops serum taken before operation from case 14, but the precipitate was too slight to justify a positive diagnosis. At operation only a shrunken degenerated cyst was found.

(7) 1 c.c. hydatid fluid from case 6, four months old, interacted with 14 drops serum from case 15, before operation, and gave an indeterminate result.

GROUP V.—Our fifth group of precipitin tests includes those conducted with clear hydatid fluid obtained from the liver cyst in case 15, passed through a Chamberland filter, and treated with sodium arsenite, 50 c.c. of the filtrate receiving 0.5 gramme sodium arsenite. With this fluid three tests were made on hydatid patients before operation, in two instances with positive results, and in one instance with a negative result.

(1) 1 c.c. hydatid fluid from case 15, + sod. arsenite interacted with 8 drops serum taken before operation from case 16, and gave a slight positive reaction.

(2) 1 c.c. hydatid fluid from case 15, + sod. arsenite, interacted with 12 drops serum from case 17 before operation, and gave a slight positive reaction.

(3) 1 c.c. hydatid fluid from case 15, + sod. arsenite, interacted with 14 drops serum from case 20 before operation, but no precipitate was seen.

Discussion of Results.—While we have obtained further evidence of recognisable and specific interactions between fluids from hydatid cysts and sera from hydatid patients, we have not been able to find a method of applying this reaction so that it will hold good in all cases in conditions of diagnosis. This failure appears to be due to difficulties relating to the serum of hydatid patients and to difficulties relating to the hydatid fluids. In regard to the serum (antiserum) we must emphasise the great differences that exist between the hydatid antiserum arising in the human subject in conditions of accidental infection and precipitin antisera prepared by artificial injection of animals. In preparing a rabbit, in order to obtain a precipitin antiserum that will interact with blood serum or with egg-white to yield a good precipitate, moderate doses of the protein (from 0.5 to 1.0 gm. dried protein) are introduced at intervals of two or three days until from six to ten such doses have been given, and the antiserum is withdrawn 10 or 14 days after the last injection. The precipitable content of such an artificial antiserum will be diminished, or may even disappear, if the injections are inadequate, excessive, irregular, or prolonged, or if the interval between the last injection and the withdrawal of the antiserum is too short or too long. With these somewhat rigid conditions, essential to the preparation of a good precipitin antiserum, we must contrast the conditions of protein interchange when the human subject becomes invaded by hydatid cysts. In the first place absorption of material from the hydatid cyst extends usually over a long period of time—certainly for months, often for many years—before the patient comes under observation, and the capacity of the human organism for reaction to the hydatid products may thus become exhausted. Moreover, the absorption of hydatid products may often be inadequate, and more often still it is probably irregular both in amount and in time. On these grounds alone it is only reasonable to expect that the precipitable content of hydatid antisera from the human subject should inevitably be small in the majority of cases, and it is not

surprising that in some cases it should be inappreciable.

In regard to the hydatid fluid, we must note (a) that not all hydatid fluids are equally capable of interacting with hydatid antisera to give a precipitate, and that some appear to fail altogether; (b) that, when hydatid fluid, filtered or unfiltered, is allowed to stand in a sterile condition, a deposit slowly separates out and may form a considerable layer, and that this spontaneous precipitation may be associated with deterioration of the capacity of the fluid for interaction with hydatid antisera; (c) that the low saline content of hydatid fluids may interfere with the precipitin reaction, since precipitin interactions are very susceptible to variations in the saline content of the fluid in which the interaction takes place. There may, however, be some way of overcoming the apparent unsuitability of some hydatid fluids for reaction with hydatid sera, for example, by modification of their saline content, but this last point did not occur to us while carrying out these tests.

Conclusions.—(1) A precipitate is not obtained in any interaction between hydatid fluid and human serum from a patient not invaded by hydatid cysts. (2) Having regard to the long duration and probable irregularity of the interchange of protein molecules between a hydatid cyst and its human host, and having regard also to the possible unsuitability of the hydatid fluid, we must expect a certain number of precipitin tests to fail to give a satisfactory precipitate, and this has been our experience. (3) In the conditions of a diagnostic precipitin test, as above described for patients suspected to harbour hydatid cysts, a negative reaction is inconclusive, but a positive reaction is conclusive of hydatid invasion, and the latter may be obtained in circumstances of clinical importance.

(Communicated to the Australasian Medical Congress, Melbourne, October, 1908).

Accommodation for Nurses.—At the last meeting of the board of directors of the Royal Prince Alfred Hospital, Sydney, attention was drawn to the inadequate accommodation for the nurses. It was realised that, while the nurses' home fund shows a debit balance of £1429, it was inopportune to proceed with the addition of the Nurses' Home, the foundation-stone for which was laid by Lord Jersey during his recent visit. It was decided, therefore, to institute a fund for the purpose of paying off the debt on the original Nurses' Home, and four of the directors present each undertook to be responsible for £100 towards this object. A sub-committee was appointed to submit scheme.

THE EARLY RECOGNITION AND TREATMENT OF PUERPERAL SEPSIS.

By T. G. Wilson, M.D., Ch.M. (Syd.), F.R.C.S. (Syd.),
Hon. Gynaecologist Adelaide Hospital; Hon.
Medical Officer, Queen's Maternity Home,
Adelaide.

PUERPERAL SEPSIS is a condition of such profound importance both to the general practitioner and to the gynaecologist alike, that the necessity of its early recognition and of its appropriate treatment should be made as familiar as possible to all members of our profession who are likely to meet with such cases. It is commendable that the Gynaecological Section of this Congress has thought fit to have a discussion on this subject, and I feel very much the honour of being asked by the secretary, Dr. Rothwell Adam, to contribute the opening paper. It was with great pleasure that I consented to undertake the task, because it is a subject which necessarily appeals to one who, like myself, is frequently called upon to treat such cases.

Although fully aware of the diversity of opinion there is as regards treatment, and also that any particular method advocated may meet with a considerable amount of criticism, I nevertheless felt that these very conditions would make my task the easier, inasmuch as the idea is to promote discussion. And after all one can only give his personal experience and convictions, and the fact that there is such a diversity of opinion may be looked upon as an indication that no line of treatment has given absolute satisfaction.

We are constantly reading records of the results obtained in different maternity hospitals showing that amongst intern cases the rate of mortality from sepsis has been reduced to the vanishing point, and that the morbidity ratio has been and is being continually reduced owing to the antiseptic and aseptic precautions enforced. But a study of the death records as given by the Registrar-General, and a knowledge of the number of cases of puerperal sepsis which are sent into the gynaecological wards of our general hospitals cannot fail to convince us that the disease is still too frequent, especially as it is one that can, to a very large extent, be classified as preventible. Another fact that is brought home to us is that in so many instances such patients are not sent into hospital till they are so profoundly septic that any line of treatment necessarily offers little chance of recovery.

Prophylaxis.—There is no class of case which better illustrates the truth of the saying that "prevention is better than cure," and this in itself is sufficient excuse for devoting part of the time allotted to me in dealing with the prophylaxis of sepsis. As I have just said that puerperal sepsis is rare in properly-conducted obstetric institutions and relatively common outside, the only rational conclusion we can arrive at is that outside conditions must be at fault. I do not wish to be accused of condemning the routine practice of medical men in their conduct of labour, but I do wish to draw attention to the large number of women who are, and always will be, attended by midwives. It has been conclusively shown that in England and Wales about 60 per cent. of confinements are attended by midwives, and in some districts as much as 80 per cent. It has also been conclusively shown that puerperal infection occurs most frequently amongst women attended by ignorant and often untrained midwives, and that the greater number of cases occurring in the practice of medical men are after complicated and instrumental deliveries. We may naturally assume, too, that in a considerable number of these latter cases the medical man has been called in by the midwife because of some abnormality. In Australia the proportion of cases attended by midwives without medical supervision is certainly much less than the figures quoted, as we have not the same slum population as in the larger centres in England.

One very forcible thought that comes to me is that something ought to be done, presumably by the Federal Government, in order to enforce the registration of midwives and to ensure that women who undertake this duty should know at least the elements of anti-sepsis and asepsis. It is self-evident that there is ample scope for such legislation in a country where the increase of population is such a crying want, also that such legislation should be directed by members of our profession. Here, again, it is not intended to depreciate the excellent work already done in this direction by the different Nursing Associations, the R.V.T.N.A. and the A.T.N.A. especially. Apart from the classes that such nurses must necessarily cater for—i.e., people in a position to pay two to three guineas a week—there is a large class for whom the above fees are prohibitive, and who, unless they are willing to go to a maternity charity, must perforce put up with the less expensive,

often highly estimable, but untrained women, who for from 20 to 30 shillings a week undertakes to look after the patient during her lying-in period. According to the cleanliness or otherwise of this nurse and her anxiety to help on the pains by making vaginal examinations, so is the risk of infection, and under such circumstances we may be well surprised that cases of puerperal infection are not more common than they are.

How this condition is to be remedied, whether by having a class of trained midwifery nurses available for such cases, possibly on the lines of the hourly nurses in America, or by having a separate midwifery branch of the District Trained Nursing Association, is a question that needs serious consideration. While absolutely untrained women, probably whose only qualification (*sic*) is that they have had children themselves, are allowed to attend these cases there will always be a large mortality list in obstetric work outside hospitals. It seems that the proposal to raise up a class of trained nurses who will, amongst the poorer classes, undertake normal midwifery cases without medical supervision, while from the medical point of view perhaps not a scheme to be lightly advised, is from the point of view of public safety and the saving of many useful lives a lesser evil than letting the present system go on. From a perusal of the medical journals it is evident that many complaints have arisen from the working of the Midwives Act in England; but it must be remembered that a large proportion of the present midwives, though registered, are absolutely untrained in the proper sense of the word. As these gradually die out better conditions will prevail, for it is just the ignorant, untrained woman who is ready to undertake a responsibility that a trained midwife would decline to accept.

It cannot be too strongly insisted that puerperal infection is merely wound infection, and once this is recognised no further excuse is necessary for adopting every precaution to prevent such infection. The argument that confinement is a normal process, and that Nature ought to be able to deal with the condition, does not mean that we ought never to aid Nature. While the gravity of interference by the hand or by instruments is to be strongly insisted on, we must remember that prolonged labour is dangerous, both from the condition of exhaustion and from the increased liability of the patient to sepsis, because of the lowered vitality of the tissues.

So we should not wait till the temperature begins to rise and the pulse to flag before assisting the patient, but when such intervention is necessary our great safeguard lies in the following out of the principles of surgical cleanliness.

The use of skopolomine and morphia in labour has seemed to me to be of use in diminishing pain and lessening exhaustion, and during the last two years I have used it as a routine practice. The general recognition of the fact that in the great majority of cases infection is carried from without, and, as a natural corollary, the fewer vaginal examinations the better, is of the greatest importance, and though we have not yet got to the stage that vaginal examinations can be altogether dispensed with, perhaps more stress is to be laid on efficient sterilisation, not only of the hands but also of the patient's vulva, before examination. It has been suggested that rectal examination with the gloved finger will obviate the necessity for the introduction of the finger into the vagina at all. Personally, I have tried this in many cases, and at different stages of labour, but find that, while sufficient in cases where the presenting part is low down, in other cases, owing to the thickness of the rectovaginal septum, sufficient information cannot be obtained. Practically, I have found rectal invagination useful only in those cases where as a rule vaginal examination can be dispensed with in any case, viz., in multiparæ and in primiparæ when the presenting part is low down in the pelvis. If a real gain were evident from this method of examination, the natural repugnance to rectal examination might be overcome. In speaking of the prophylaxis of sepsis another point to be remembered is how frequently septic symptoms develop after the fifth or sixth day, indicating often that infection has been conveyed not at the confinement, but in manipulations during the puerperium. This fact emphasises the importance of antiseptic and aseptic precautions during this period also.

The ordinary details of the aseptic and antiseptic conduct of labour while most important—and here I might especially mention the routine use of rubber gloves—have been so fully and ably dealt with in many recent publications that they may be assumed to be fairly well agreed on. Another factor in the prophylaxis of sepsis that may be mentioned is the effective treatment of purulent vaginal discharges, so often gonorrhœal, during preg-

nancy, and to this end the applications of strong antiseptic solutions, silver nitrate or argyrol, has seemed to me more effective than routine douching, which really fails to get at the seat of infection. Recent reports of the use of yeast and zymine preparations for this purpose would seem to promise excellent results. Naturally we all recognise the importance of maintaining the patient's health during pregnancy, realising that the better her general condition at the time of confinement the less likelihood of sepsis, and should this occur the patient is in a better condition to withstand it. The prophylaxis of sepsis will, therefore, largely consist in a thorough realisation and carrying out of these different methods in the care of the patient.

The two parts of the title of this paper go well together, as the best chance of instituting effective treatment lies in recognising the conditions early.

The recognition of the more acute types of infection, which force themselves urgently on the practitioner's notice, is not difficult, but a certain diagnosis in many cases when there is a slight temperature and a quickened pulse rate during the puerperium may at first not be at all easy.

The suggestion of the Conference of the British Medical Association in 1906 to define more clearly what are to be considered morbid cases, viz., any case where the temperature between the second and the eighth day rises twice to 100°, certainly seems a step in the right direction. We know that very many cases which come under treatment as ordinary pelvic inflammatory trouble, have really had their origin in the puerperium, and had efficient treatment been carried out at this stage, when the infection was localised in the uterus, these patients would often have been saved much suffering and sometimes mutilating operations. There is certainly good ground for believing in the truth of the dictum that success in obstetric practice should be judged rather by the percentage of morbid cases than by tables of septic mortality. When we come to consider the symptoms which indicate infection during the puerperium, the most reliable are first, temperature; second, pulse ratio; third, involution of the uterus; fourth, changes in the lochia.

Temperature.—A rise of temperature during the puerperium is always to be looked upon as possibly indicating some infection till it has been proved otherwise. During this

period, it is within our knowledge that transient rises of the temperature are often put down to such conditions as constipation, for instance, because on the free evacuation of the bowels, everything again becomes satisfactory; but are we right in assuming that there was no uterine condition at the root of it all? In many such cases a more rational explanation is that the loaded rectum, the recumbent posture, and possibly, also, some backward deviation of the fundus, have in conjunction interfered with the lochial discharge, damming it back, and that the straining produced by the purgative, assisted the uterus in expelling this discharge, and so put an end to the absorption of the toxins. That this is quite feasible, is evidenced by the fact that micro-organisms have been proved to be present in the lochia in over 30 per cent. of normal cases of labour, and also by the knowledge that a similar degree of constipation would not cause a temperature in the non-puerperal patient.

The same thing is illustrated in some cases where the temperature goes down after washing out the uterus, where the explanation that the drainage of the lochia has been rendered more efficient is much more rational than that the infecting organisms have been killed or inhibited in their growth by an antiseptic, which could not have penetrated the fibrinous lining of the uterine cavity. I have for several years, as a routine practice, had the head of the puerperal patient's bed raised, with the idea of favouring the lochial drainage. The rationale of this old-fashioned idea, which was advocated by Harvey two and a half centuries ago, is fully supported by recent bacteriological investigations of the lochia.

While I have not included bacteriological examination of the lochia amongst the factors which may help in the diagnosis of septic infection, it is not intended to minimise the importance of information that such examination may give, but from the nature of the special knowledge and apparatus required, it is recognised that this cannot be a routine proceeding in the great majority of cases in private practice.

When infection takes place during labour, a temperature occurs fairly soon, an exacerbation of temperature with possibly a rigor, often indicating that the infection has spread beyond the uterus itself.

Temperature occurring for the first time after the fifth or sixth day, very often indi-

cates infection subsequent to labour, or to an increase in the virulence of saprophytic organisms, or to an added or mixed infection, especially by the bacterium coli commune or streptococcus, or both combined.

Increase in pulse rate.—The pulse rate, or rather the pulse ratio in regard to the temperature present, is naturally a most important symptom, and a relatively rapid pulse rate, in the absence of previous hæmorrhage, is always an early and suspicious symptom of some infection.

Delayed involution of the uterus.—A relatively large uterus in regard to the period of the puerperium, and especially if the uterus remains tender, is always a suspicious symptom. The correct management of the third stage with the presence of a well involuted, hard uterus form one of the best criteria of a normal puerperium.

In regard to the question of retained membranes, I am of opinion that the exploration of the uterus, especially with the bare hand, for suspected pieces of membrane, is more dangerous than leaving them to come away themselves, and that it is quite unnecessary if lochial drainage is efficient.

Naturally, where the membranes can be seen in the vagina or hanging out of the vulva, it is advisable to remove them.

The presence of a full bladder, or a loaded rectum, and the use of a tight abdominal binder, which may cause retroversion, and so hinder drainage and delay involution, are other factors to be remembered.

Changes in the lochia.—The character of the lochia, though not always of help, may sometimes be of diagnostic importance. In the so-called saprophytic infection, and especially in B.C.C. infection, the lochia is offensive, but in the severe streptococcic infection the lochia are not as a rule offensive at all. A profuse, purulent lochia coming on early indicates gonorrhœal infection. Sudden cessation of scanty lochia is often indicative of severe infection, but I have several times seen cessation of the lochia associated with high temperature from other causes, pneumonia or pyclitis, where the subsequent progress of the uterine condition was quite satisfactory.

While there is a fairly definite agreement as to the method of prevention of infection, there is considerable difference of opinion on the one hand as to the methods of local treatment when the condition of sepsis has developed, and on the other whether it is ad-

visable in such cases to resort to any local interference at all, but merely to trust to general supporting treatment and attempts to raise the local and general resisting powers of the patient. Here, again, the recognition of the principle that puerperal infection and wound infection are identical in origin and character, modified only by the anatomical relations of the wounded area, seems to me to indicate the line of treatment. In the great majority of cases the infection is at first localised, and this is naturally the ideal time to institute local treatment; so that the necessity of the early recognition of infection again impresses itself on our notice.

Although in some of the acutest forms of sepsis the infection has become generalised almost from the start, here even it is at first uncertain that disinfection of the source of origin of the infection may not be of service in limiting the supply of organisms and toxins that are being absorbed. The chief objections raised against routine local treatment are that the protecting wall of leucocytal infiltration in the uterus may be disturbed, and that antiseptics applied locally cannot penetrate deeply enough to kill all micro-organisms present. The researches of Bumm have, however, conclusively shown that in cases of severe septic infection by the most virulent micro-organisms this protecting wall of cell infiltration is imperfect or absent. The interior of the uterus offers an ideal place where, if we believe at all that antiseptics can kill micro-organisms, they can be applied sufficiently strong to kill any organisms present. The argument of "laissez faire" is supported by the fact that sometimes in such cases, the intensity of the infection has been increased by curettage or washing out, because fresh areas are opened up for absorption, but if the protecting barrier is already inefficient, no material harm can come of clearing out infective material and disinfecting locally, and organisms which have already got beyond the possibility of being reached, cannot be made more virulent.

The whole question hinges on whether we can any longer differentiate between the so-called saprophytic type of infection and the septicæmic type. Where the symptoms are manifestly due to absorption of toxins from retained putrid material, it is generally admitted that its removal is indicated, and when this is effectively done the results are excellent. It has been proved that in cases of retained putrid material in the uterus, saprophytic organisms are themselves capable of

producing generalised infection, and even if the saprophytic organisms do not cause such infection they may act as a stimulus to pathogenic organisms present or accidentally introduced to become more virulent. We are not yet able to definitely foretell when such added infection may take place, and it seems safer to look on every septic case as possibly infective.

Treatment.—Broadly speaking, I am of opinion that treatment should be instituted on the following lines:—

1. Thorough clearing out of infected material from the uterus and efficient local antiseptic treatment.
2. Doing all that is possible to increase the patient's power of resistance to the infection. Under this heading, besides general measures, will be placed the use of vaccines and serums, and substances such as nuclein, etc., which are supposed to act by increasing phagocytosis.
3. Ensuring efficient drainage subsequently.

Once we have decided that a case is septic, the sooner local treatment is carried out the better. The first question to be considered is that of anæsthesia, as treatment to be effective is necessarily painful, and manifestly we do not wish to further depress the patient's vitality. I have tried skopolomine and morphia in severe cases, followed possibly by a few whiffs of A.C.E., but in the less severe cases find ether well borne. After putting the patient in the lithotomy position, a thorough examination of the vulva and vagina is made, any stitches being let go, and infected lacerations swabbed with an antiseptic. I formerly used iodized phenol, formalin, or biniodide in spirit, but since reading Dr. Gordon's article on the use of medical izal for this purpose, about 18 months ago, have used this preparation altogether, and have been more satisfied with it than with any other antiseptic. It is not particularly painful, even pure, does not cause superficial coagulation necrosis, and in using it for the interior of the uterus it has distinct hæmostatic properties. It certainly seems to clear up sloughy fibrin-covered, infected areas, much more quickly than any other antiseptic that I have tried, and I have never seen any symptoms which could be put down to absorption after its use.

Next, attention is turned to the uterus itself, and after examining the interior with the finger, it is thoroughly curetted with a large sharp curette. I am of opinion that if

curettage is to be done, it can only be efficiently done with a sharp instrument, as a blunt curette so often rides over pieces of adherent placenta. In curetting, I like to hold the fundus with the left hand in order to minimise the risk of perforation, but with a broad curette this is not very likely, though the uterus in these cases is admittedly soft and flabby.

Here I would say that in my experience it is quite exceptional not to find a considerable quantity of decidua and fungous like debris, even in cases where the lochia has been absent or not at all offensive. The presence of this material in an infected uterus must mean a very favourable nidus for the growth of organisms, and in my opinion it is far better removed. Also, while such material is present, an antiseptic applied locally cannot be expected to properly reach any organisms present. After the uterus is empty and the endometrium removed down to the muscular layer, the next step is to disinfect the uterine cavity, and for this purpose it is rubbed over energetically with a swab soaked in pure "Medical Izal," endeavouring to reach the whole of the interior of the cavity.

If the uterus contracts well after this treatment, it seems to be a favourable sign. Lastly, the uterus is lightly packed with gauze soaked in 1-20 solution of izal, or with gauze liberally powdered with iodoform. The gauze is removed in 24 hours and is not re-inserted.

In the after treatment the head of the patient's bed is kept considerably raised, and in severe cases frequent injections of saline by the bowel or subcutaneously are used. Strychnine and ergot or quinine, together with hot antiseptic vaginal douches are employed, in order to stimulate the uterus to contract and retard accumulation of lochial discharge, but no further local treatment.

The general treatment in regard to stimulants, free feeding and general care usual in septic cases is carried out. If serum or vaccine treatment is to be adopted it is injected as soon as possible after curettage.

I have had no experience with the use of Credes' ointment or of collargol, but have seen several cases which were treated by intravenous injections of formalin, with no good result, and in one case with apparently decided bad results, so much so that I do not feel inclined to try the treatment further.

I have used Fourchier's treatment of subcutaneous injections of turpentine, but apart

from certainly causing local abscesses, it had no appreciable effect. The use of injections of nucleic acid has greatly interested me, and I have convinced myself that a definite leucocytosis does follow its injection in normal cases, and in septic cases have thought that it may have done good. The use of antistreptococcic serum, polyvalent and otherwise, has not in my experience proved of definite value.

In the only case in which I have used a vaccine, made from the organisms isolated from the uterine discharge, in this instance a staphylococcus, the patient recovered after a long illness. Though this was a very severe infection, and I expected the patient to die, as far as one could judge clinically and from an examination of her chart, the improvement could not be put down to the use of the vaccine. In this case the only reaction that was obtained was when a dose of 750,000,000 staphylococci was given instead of 250,000,000 owing to a mistake in standardising the vaccine. The vaccine was given without reference to the opsonic index, and perhaps the dosage was too small.

The report of two cases treated by Dr. H. C. Lloyd certainly does make one hopeful of this method of treatment as an adjuvant, but it seems to me that efforts to deal with the organisms at the site of infection must always be our first aim, and after that, vaccine therapy is certainly a logical effort to help the patient in her fight against toxins already absorbed.

Dealing, as one necessarily does in hospital practice, with cases in which the infection is well advanced when they are admitted, my personal opinion is that the treatment above described has been more effective than by washing out or curettage without uterine disinfection. Though one does not expect severe cases to recover forthwith, it has seemed to me that such cases were better for having had their source of supply of infecting organisms cut off or diminished.

Pryor's treatment of septic infection, by opening the posterior cul-de-sac and isolating the uterus with iodoform gauze in those cases where the symptoms did not subside after disinfection of the uterine cavity, gave promise of being of great service, but apparently other observers have not had the same brilliant results as were recorded by the late Dr. Pryor himself. One cannot help feeling that amongst his records of successful cases were many that would have recovered without this operation.

I have frequently had the fluid obtained from the pouch of Douglas in septic cases, examined microscopically, and know how often it contains organisms, B.C.C. especially, but also streptococci and staphylococci. There are also large numbers of leucocytes, which have succumbed in their fight against these organisms. The presence of this fluid in the pouch of Douglas would seem to be a favourable sign as indicating well marked reaction to the infection. Pryor claimed that this fluid was practically always sterile after the first dressing with iodoform gauze, and looked on the getting rid of this fluid as an essential part of his treatment. The rationale of this treatment is that it causes a blocking of the larger lymphatic vessels at the back of the uterus, and so prevents further infection by this route. Also the iodoform gauze, besides acting as a local antiseptic by the liberation of iodine, causes a localised inflammatory reaction, and this accession of leucocytes may also help in limiting the infection. The procedure is therefore to be looked on as not only curative in some cases, but as a prophylactic, and for this reason it should be resorted to early, but naturally not till after the uterine cavity has been efficiently disinfected. I have seen, and have had many striking instances of recovery after this procedure, especially in post abortion cases of sepsis, and even where no fluid was evacuated from the pouch of Douglas. In post puerperal cases, however, it is not an easy matter to isolate an organ, which may extend anywhere up to the umbilicus, and in these cases I have not been very favourably impressed with the results of this proceeding. It may be that the rest of the lymphatic supply is so hypertrophied at about full time, that the blocking of the posterior lymphatics is not sufficient to limit the infection. So that latterly in early post puerperal cases, I have not opened the posterior cul-de-sac except with the idea of affording drainage where peritonitis or localised inflammatory exudation has been present. There still remains the consideration of various major operations in cases of puerperal sepsis. That the operation of hysterectomy has been proposed and practised for this condition, indicates that it was felt that good could be done by getting rid of the source of infection. Between the years 1892 and 1902, the operation, judging from the records in obstetrical journals, was pretty extensively performed in all classes of septic infection.

The consensus of opinion at the Conference in Rome in 1902 when this question was discussed, was one of marked disapproval except for certain well-defined cases, such as an infection in childbed, associated with cancer of the cervix, localised abscesses in the uterine walls, and infection associated with the presence of sloughing or infected fibroids. Personally, I have not yet met with a case where the possible good to be obtained has seemed to justify this operation.

Another operation that has been advocated in cases of puerperal pyemia is ligature of the thrombosed pelvic veins, with, in some cases, clearing out the contained thrombus. Dr. Lendon, of Adelaide, has recently recorded a successful case where the operation was done by the intra-peritoneal route. Dr. Moore, of Melbourne, has also recorded similar cases. It seems to me that the almost absolute uncertainty of diagnosing the extent of the thrombosis, and the fact that most of the less severe cases tend to recover without any major operation, as indicating that the thrombosis is probably a conservative process will form valid objections to the general adoption of this operation, even when, as has been proposed and carried out, the ligation is performed extra-peritoneally.

Puerperal Peritonitis.—The last condition to be considered is the treatment of puerperal sepsis where peritonitis general or more or less localised is actually present. Unfortunately it is at this stage that patients are so frequently sent into the wards of a general hospital, and here at any rate we are at no loss to know what the prognosis of the case is if nothing be done. The look of the patient, the pulse rate, the slightly, if at all raised temperature, the vomiting, the distended and immobile abdomen, with very often the condition of euphoria of the patient, leave no room for conjecture as to how the end will come. The chief question is as to how much or how little is to be done to be effective. The treatment of general peritonitis following appendicitis, has made us familiar with the various stages that have been gone through, from the total evisceration and endeavour to wash away infective organisms, to the method of simple incision and providing for efficient drainage, while adding as little as possible to the strain of the patient's already poor condition. While the outlook for these cases is unfavourable, though records up to 60 per cent. of recoveries are noted, it is to be looked on as a distinct advance that we can hope to

save some of them. The extra strain of the anæsthetic is always a factor against the chance of the patient, and perhaps we will find spinal anæsthesia a distinct advance in these cases; but whatever is done has to be done quickly, and as little anæsthetic as possible used. In localised cases curettage and disinfection of the uterus with provision for drainage by opening the cul-de-sac will be sufficient.

In cases where the peritonitis is general, I have made a small incision above the pubes, and sometimes in one or both flanks and inserted flanged drainage tubes. Sometimes I have not washed out at all, but as a rule I wash out through the anterior drainage tube under slight pressure when the fluid escapes through the loin tubes, but I avoid handling the intestine as much as possible. Lastly, the uterus is curetted and disinfected and a drainage tube put into the pouch of Douglas, and hot saline again run through the suprapubic tube. The flushing, described by Blake (*Annals of Surgery*, 1906), seems to be a useful appliance for this purpose. Everything is done as quickly as possible, and the patient put back to bed in Fowler's position, and the constant saline drip by the bowel adjusted as soon as possible.

The free administration of strychnine and stimulants to tide these patients over the shock of the operation is of great importance, and the outlook would seem to depend largely on whether the dose of toxins already absorbed is too great for the patient to deal with. Naturally the use of serums or vaccines and anything we can do to raise the resisting power of the patient will have their place here.

Whilst the prognosis in many cases is not encouraging, we know that we have given the patient, as far as we know at present, the only chance she has of recovery. That there is something more to learn about the course of these cases is indicated by the fact that though we may have a number of successive cases which recover after the treatment, almost making us think that we had at least a panacea, other cases, which from a clinical aspect at any rate looked more hopeful than some of those which have recovered, are not able to overcome the toxins already absorbed. We have as yet no means of estimating with certainty the virulence of the infecting micro-organisms or the resisting power of the patient in each individual case; and our chief hope of success lies in instituting eliminative treatment as early as possible.

THE ABUSE OF HOSPITALS AND ITS EFFECT UPON THE NATIONAL CHARACTER.

By Ralph Worrall, M.D., Sydney.

The resolution which has been entrusted to me is "That in the opinion of this Congress, no payment whatever should be taken from patients treated at hospitals maintained by the donations of the charitable and by Government grants."

The first question in connection with the matter is, "Is there any cause for alarm?" Beyond all question. I call as witnesses every man here in a large practice, or connected with a large general hospital. I could give innumerable instances from my own experiences if it were necessary, but it is not. The abuse has reached such great dimensions that it has aroused public attention, and, if you will allow me, I will read you one or two paragraphs from a weighty leading article in the *Argus* last Saturday: "Consequently we have on the part of the public an ever-increasing complaint of the cost of medical treatment, and on the part of the profession an ever-growing protest that its purely voluntary service is being more and more imposed upon by the increased demands of public hospitals. While specialism in medicine and surgery is making for greater accuracy in diagnosis and treatment, it seems hardly reasonable that it should curtail the bread and butter of those who seek thereby to make their art more perfect. What is to be the solution? The present drift appears, without doubt, to be in the direction of State-paid medical service. The question that both the public and the profession have to face is whether this present tendency is, or is not, merely a drift. The State paid medical practitioner seems scarcely possible as a practical realisation. Mallock's factor of ability appears certain to upset any idea that individuals will give their services to the State for a salary which they could double or quadruple on their own initiative. And it is more than doubtful if the public would find any real comfort in the ministrations of a State-paid medical service. The appraisal of personal skill is, after all, a matter of opinion, and is only one factor in the selection of a medical attendant. It is the personal relation between doctor and patient that gives the real value to medical advice, and such a relation must, to a great extent, be warped where the sense of personal obligation is stifled in both directions, as it must be if the doctor is to become a servant

of the State. If the present tendency is a drift, then it is high time the drift should be stopped; and it can only be stopped by an effort from both sides. The public must decline to allow charitable institutions to be made use of by those who are not entitled to their accommodation and the profession must bring itself to countenance a more elastic scale of fees, that will provide a fair remuneration for every division of labour, and permit the patient to feel that specialisation in medicine and surgery is not going to spell ruin. The interests of profession and public are mutual, and not antagonistic, and if this were kept in view on both sides there would be less difficulty in adjusting present differences on a basis of mutual advantage. The fact that medicine has lost most of the atmosphere of aloofness and mystery with which the older physician surrounded himself, and that modern doctors are anxious to meet each other scientifically and socially in an assembly like the present Congress, is evidence that the laws of the profession are not unadaptable to altered conditions."

I think I need say no more as to the extent of the abuse. Let us turn to the cause and remedy. The cause lies in the fact that the people have become demoralised by the multiplicity of hospitals and charities, and by the manner in which these hospitals compete for clients and support. These hospitals have in many instances been established by well meaning people, who are not happy unless running some charity, or by individuals or corporations who use such means for increasing their incomes and extending their influence. In consequence, the people have gradually lost that sense of shame that they at one time felt at accepting hospital relief while having means to pay for it. "Everyone does it, why not I?" that is the cry in connection with this matter. Let me read what Chief Justice Madden is reported to have said at the annual meeting of the Austin Hospital. "The people of the State annually give £300,000, of this £150,000 is expended on the patients, and the other £150,000 melts away in the management expenses of the innumerable "institutions," "refuges," "homes," and what-not, that hang their signs out in almost every street."

Perhaps you will bear with me while I read from the *Sydney Morning Herald*. After touching on the fact that there are four Women's Hospitals in Sydney, within a mile of each other, and asking why it is believed these various institutions are considered

necessary, it goes on to say :—"The public are daily called upon to subscribe to all sorts of charities, and in almost every instance one finds that there are two or more quite independent bodies with precisely the same objects. There would be a great saving of public funds, and much more efficient and economical administration if the Government refused a subsidy to all new charities which were already adequately provided for, and insisted on the amalgamation of those already in existence, as far as seemed advantageous to the community."

It is certain that the present system of rival charities is having a disastrous effect upon the morale of the people. Each charity can show how largely it is patronised, and this is put forward as proof that "it meets a long-felt want." In reality, the increasing numbers who attend the hospitals and other charities indicate that the self-help, which has hitherto led the working classes to join benefit societies and make other thrifty provisions against a "rainy day" is being rapidly undermined, and that, therefore, the whole question calls for the grave consideration of the Government.

Now this brings me to point out that in this matter of hospital abuse, the interests of the Friendly Societies and the medical profession are identical. The difficulty that the Friendly Societies at the present time find in maintaining their membership and filling their ranks is largely due to the competition of the hospitals. Only a little while ago, a man in constant work, whom I knew, had his family ill. I said to him, "Are you in a lodge?" "What doctor is attending you?" He said, "I have never joined a lodge; we always go to the hospital, and if we are too ill, the City Mission sends its medical officer. When I am invalided, I can get an invalid pension; and when I am old, I will get an old-age pension."

You see what a bad effect is produced by this unwise charity and foolish legislation. Every student of history must admit that the loss of self-reliance in individuals composing a nation has been a very important factor in its decline and fall. When the Carthaginians came to rely on mercenary armies to defend them, their doom was sealed; and when the Roman populace sunk so low that the people were fed in the market place daily, they lost their thrift and self-reliance, and fell an easy prey to the hordes of barbarians that swept over Europe, the units of which had been trained to rely on themselves, each for himself, and yet all together.

By the way, that is the spirit which I should like to see animating the medical profession, each for himself, and yet not so that individual action should strike at the root of the common good and the general interest.

The loss of self-reliance, according to Gibbon, was an important factor in the downfall of the Roman Empire, and unless our politicians take a broad commonsense view of the effect of the piece-meal, socialistic legislation they bring in from time to time, calamity will surely come to us also. There should be no pensions unless they be based on contributions made during the period of a man's active work, as in the German Government Insurance system. Thrift and self-help must be fostered, not destroyed.

I bring these facts forward not because I wish to attack socialistic legislation, but to show that the question of hospital abuse goes much deeper than many are disposed to think. What steps should be taken to remedy the evil? In my opinion the foundation of reform lies in the resolution which has been entrusted to me. Hospitals must be stamped beyond all question as charitable institutions. The payment to the Secretary of the hospital of a sum of money for which a receipt is given, leads many to believe that this is the full value of the services which they receive, others use it as a salve to their consciences, and many more hug themselves for having obtained by a little chicanery what would have cost them more outside. Let me give an instance of how payment to the hospital reacts upon the patient and robs the surgeon. Within the last few weeks I operated upon the wife of a leading citizen in the Sydney Hospital, without knowing who she was. Some few days afterwards, in going through the hospital, she told me who she was. I said, "If anyone told me your husband had sent you in here to accept charity, I would not have believed it." She said, "I am not receiving charity, I am paying three guineas per week." I pointed out that no matter what she paid per week she would still be accepting charity from honorary surgeons, who were not paid for their services, and that she was taking up a bed and depriving some poor woman of the opportunity of being treated.

If the hospitals will carry into effect this resolution, they will receive, as Dr. Moore has said, a larger measure of support, and the strain on their resources will be less, because many who now use them will be diverted

into private hospitals. I therefore earnestly commend this resolution to your favourable consideration, in the belief that it will enormously strengthen the hands of those who in the different States are doing their best to protect the profession from imposition, and the national character from deterioration.

The following resolutions were carried at the Australasian Medical Congress :—

1. "That in the opinion of this Congress no payment whatever should be taken from patients treated at hospitals maintained by the donations of the charitable and by Government grants."

2. "That, except in cases of accident or emergency, every patient should, before being treated, be required to sign a declaration of inability to pay for medical attendance, and that as far as possible all patients seeking treatment should bring a recommendation from their own medical attendant, whether lodge or other."

3. "That this Congress affirms the foregoing resolution as the foundation of any real reform in the present abuse of hospitals, and is of opinion that other hospital accommodation would extend naturally to the inclusion of all those able to pay for medical or surgical treatment."

4. "That this Congress is of opinion that it would be a great gain to the community if an executive body were established to—

- (a) Administer the Government grant.
- (b) Classify hospitals.
- (c) Prevent overlapping of hospital work.
- (d) Insist on enquiry for the prevention of imposition.
- (e) Insist on the adoption of uniform methods of keeping accounts.
- (f) Close unnecessary hospitals.
- (g) Prevent the establishment of unnecessary hospitals.
- (h) Foster economy in hospital administration.
- (i) Promote the transfer of patients from one class of hospital to another."

The Melbourne *Age* calls attention to the remarkable result which followed the monthly call of candidates for the police force. A hundred applicants were called up for examination, but of these 47 did not appear, thus leaving 53 actual candidates. Of this number, 32 were rejected as being under the height and chest measurements. Of the remaining 21, only 14 passed the educational test. These 14 were then sent to the doctor for medical examination, and only one of them was passed.

RUPTURE OF STOMACH—PARTIAL GASTRECTOMY—RECOVERY.

By Theodore Ambrose, M.B., M.Ch. (Syd.), Hon. Assistant Surgeon, Perth Public Hospital.

ON October 14th a man, aged 62, was admitted to the Perth Public Hospital, suffering from severe abdominal pain. His history was as follows :—He was bending down, boring a hole in a block of wood with a large auger, holding the handles in his hands with no pressure on the chest or abdomen, when he was taken with a sudden sharp, severe pain in the epigastrium, which incapacitated him. He was taken at once to hospital. He gave a previous history of "indigestion" for 18 months, with anorexia and wasting, and an inclination to vomit in the mornings, though nothing was brought up. There was no history of hæmatemesis nor of melæna; usually he had no pain after meals, but sometimes "felt as if he would burst." He ascribed his indigestion to taking bad food 18 months before on a ship. He had had no gastric trouble before that.

On examination, patient was groaning in great agony, the face was much drawn and pale. The pulse was 76 and intermittent; arteries somewhat rigid. The abdomen every where was rigid as a board, the recti standing out plainly. There was great tenderness all over the abdomen, especially in the upper part. The liver dullness was lost. The patient was prepared for immediate operation, and the operation was commenced about 1½ hours from the onset of the sudden pain.

Under ether, an incision was made to the right of the midline, between the ensiform cartilage and the umbilicus. The anterior sheath of the rectus was opened, the muscle retracted, and the posterior sheath incised. Immediately the peritoneum bulged into the wound. On opening the peritoneal cavity bubbles of air escaped, together with a large quantity of turbid fluid containing flakes of partially digested food and other debris. On drawing the stomach into view a slit was found about ½ inch in front of the lesser curvature, running parallel to the curvature and a little nearer to the pyloric than to the cardiac end. It was sharply cut, as if with a knife, and was about 1 inch in length. Around the rupture there was a hard infiltration of the stomach wall of an area some 2 inches long and 1½ inches wide. Underlying the rupture was a circular sharply cut ulcer, the size of a half-crown, with indurated

edges. Some enlarged glands were felt in the gastro-hepatic omentum.

Bearing in mind the likelihood of a malignant disease being present or imminent, it was decided to remove the whole of the diseased portion of the stomach, including the ulcer and the perforation. The gastro-hepatic omentum was too short to allow of clamps being applied from the lesser curvature, and had that been possible the diseased area was too extensive to embrace with clamps without including the whole of the lumen, so clamps were applied across the whole of the organ, allowing an inch above and $\frac{3}{4}$ of an inch below the diseased tissues. The greater and lesser omenta were two divided between two rows of ligatures, the four main arteries being secured as they coursed along the curvatures. As much of the lesser omentum as was possible was removed with its enlarged glands. The diseased portion of the stomach between the clamps was cut away, some two-thirds of the whole organ being thus removed. The cardiac end was approximated to the pyloric, and as the former surface exceeded the latter considerably a portion was over-sewn with a double continuous suture, so that the cut ends were fairly equal. Then an end-to-end anastomosis was performed, the redundant mucosa having been previously cut away. A continuous suture of thick catgut was employed, and this was made to embrace the whole of the walls of the stomach. It was not considered advisable to attempt to turn in more stomach tissue with another line of suture as there already existed some tension. When the clamps were removed any weak portions were further strengthened with extra sutures, and a few bleeding points were secured by undersewing with catgut. The stomach was then allowed to drop back into the abdomen, and the greater omentum was drawn up over the line of suture. An opening was made in each loin and a tube carried well up into each kidney pouch behind the stomach, and fixed to the skin. The peritoneal cavity was flushed out with hot saline. The anterior wound, which measured $3\frac{1}{2}$ inches, was completely closed in layers. The operation lasted a little over two hours, but the patient stood it well; pulse 70-80. After the operation the patient's bed was raised at the head, and a drip saline by the rectum was instituted.

About four hours after the operation patient felt much easier than before operation, but as he had some pain morphia with atropin was given hypodermically.

The following morning (October 15) he vomited a little blood, the last mouthful being bright, but this soon ceased. Had some hiccough and thirst; the latter was controlled by sucking ice. Little or no shock was present, and the tubes in the loins were draining freely, so the drip saline was discontinued and rectal feeding carried on fourth hourly. At night the patient vomited a little occasionally, but felt fairly comfortable; pulse rate increased to 132.

October 16.—Patient much better; able to talk without effort; vomited 2 oz. of yellow fluid; passed flatus; the right tube discharged pus; some of the nutrients rejected.

October 17.—Vomited yellow fluid off and on through the day; bowels opened; had some pain in the wound; developed a cough (had bronchitis two years before); morphia, strychnine and atropin ordered hypodermically p. r. n.

October 18.—Feeling better; no pain, but thirsty; both tubes discharging a little pus; pulse and respiration normal. Temperature has been normal or subnormal since operation.

October 20.—Still improving; albumin water given by mouth in teaspoonful doses; left tube removed as only a little serous fluid was discharged; right tube still discharging pus.

October 21.—Peptonised milk given by mouth.

October 27.—Peptonised milk gave pain at first, but not now; liquid peptonoids (1-4) by mouth; still having nutrients.

October 31.—Taking milk; asking for more solid diet; calomel gr. 2 given as aperient p. r. n.

Anterior wound healed by first intention. Lateral wounds almost ceased discharging. Nutrients discontinued.

November 2.—Taking custard, Brand's essence, milk, etc. Feels well, but weak.

November 7.—Put out on lounge on verandah. Taking arrowroot, bread and milk.

Nov. 18.—Patient walking about, though rather weak; is taking fish and tripe.

November 25.—Improving daily. Is taking minced meat; can take quite a large meal without discomfort. Feels better than he has done for years. No pain anywhere.

Microscopical sections of the gastric tissues removed were examined by Dr. J. B. Cleland, and showed great fibrosis around a chronic ulcer. No malignant cell elements were found.

From the man's age (62) and the appearance of the parts it might be assumed that malignant changes would soon supervene.

I have to thank Dr. Chapman for a skilful anæsthetic and Dr. Nelson for his able assistance at the operation, also Drs. Nelson and Gerrard for much of the after-treatment and notes on the case.

[The patient and the specimen removed were shown at the West Australian Branch meeting of the British Medical Association.]

A CASE OF HENOC'S PURPURA.

By W. C. Howle, L.R.C.P. (Lond.), Pambula, N.S.W.

SEVERAL cases of this condition having recently been reported in the home journals,¹ perhaps the following case may prove of interest.

H.B.G., a boy of eight years, was first seen on June 20th, 1906, with abdominal pains, passing blood in motions, vomiting, and a purplish rash on legs, arms and chest.

Shortly, the history was as follows: Illness began 10 days ago with indefinite pains in limbs and feverishness, followed in seven days by "pains in stomach" and vomiting; left elbow was "puffy," and motions were black. The pains in limbs increased, both elbows became swollen, and the rash appeared. The boy came of a healthy farming stock. He had never had any rheumatic symptoms or any illness whatever.

Examination revealed a well-nourished boy, big for his age, with typical "post nasals" facies. The skin was dusky, and mottled almost generally with a "measley" purpuric rash, which was best marked upon the extensor surfaces of elbows, over the malleoli, patellæ, and surface of abdomen. The abdomen was retracted and extremely tender about the umbilicus, where a small, tender, soft, but distinct tumour was palpated and found to have a diminished percussion note. The tumour was mobile in every direction, and evidently intestinal. The spleen was normal. The temperature was 97·8° (and remained sub-normal throughout the illness), pulse 104, respiration 20. Abdominal pain was acute, and referred to the tumour.

During the visit, about half an hour, several severe attacks of vomiting and tenesmus were witnessed. Attempts at defæcation occurred about every 10 minutes, and small quantities of red, blood-stained mucus were passed. The vomitus was partly-digested food, and contained no blood.

Nothing could be felt per rectum. There was systolic bruit heard at apex, and conducted upwards. The lungs were clear.

Treatment was symptomatic. Removal to the nearest (Pambula) Cottage Hospital was advised, and patient was admitted next day.

Upon admission, condition was unchanged. During the first night after admission the symptoms became more severe, and the general condition gave great anxiety. The tumour disappeared from the umbilical region to reappear in a few hours in the left iliac fossa; the abdominal pains increased, straining became more frequent—five to seven minutes—and two to three oz. of bright blood passed per anum at each effort. The rash increased in quantity, and the patches became larger in area and made up of larger maculæ, from 2 to 75 m.m. across. The skin was pale, breathing shallow, pulse 140 or uncountable and thready. The urine was normal in quantity, and showed nothing abnormal to test tube or microscope. The treatment was palliative; no abdominal section or other operation was seriously entertained, because the blood condition seemed to be the primary malady. In fact, at no time did the boy's condition seem to warrant operation. Bismuth and opium was given by the mouth. A pint of normal saline was infused subcutaneously from time to time. Heat to the extremities and an ice-bag to the abdomen.² As vomiting continued, somatose and egg albumen were given per rectum, with small quantities of brandy, by means of the long tube. This seemed to be retained.

Next day, June 23rd, 1906, the acute symptoms had somewhat subsided, the rash was duller, and the general signs of blood loss less marked. The tumour had disappeared. Both elbows, knees, ankles, and left sacro-iliac joint were swollen and painful, full of fluid, and all over the same joints the rash was more thick and vivid than elsewhere. One severe attack of abdominal pain, straining and mæna (3 oz.) occurred.

Blood examination showed the count of a secondary anæmia.³ Reds, 2,500,000; whites, 12,000. No abnormal cells seen. Hæmoglobin about 70 per cent. Specific gravity, 1040. Several attempts at cultures taken were sterile. Films were taken twice weekly during patient's stay in hospital, and at no time did the appearances differ greatly. The coagulation time was estimated by Monckton Copeman's method,⁴ and gave 4·5, the control being 3·1.

Treatment.—Calc. lact. gr. 10 t.i.d., and the bismuth and opium only used to relieve pain; dialysed iron min. 10 t.i.d. alternately with lactate. Food was mild, Mellin's, Benger and beef juice.

During the next week the condition improved a little, the rash faded for the most part, and the joint swellings subsided somewhat. The coagulation time decreased to 3·7, but the boy's condition was unsatisfactory. Each day at least one severe attack of pain, straining and passage of blood-stained mucus was experienced. Each attack was heralded by abdominal discomfort and a fresh crop of the hæmorrhagic rash sometimes upon the abdomen, at other times upon the swollen joints. The vomiting quite ceased. This state remained fairly even till 5/7/06, when the acute symptoms returned, the rash became general, the pains and tenesmus occurred hourly with signs of grave anæmia. The next day was less acute, and a week followed during which the daily attacks were only "reminders."

From the 12th to 24th three attacks of pain, outcrops of rash and melæna occurred. On 24th a large effusion appeared over the right parotid and mastoid, which increased and invaded the submaxillary region. On the 25th the left parotid area was similarly affected, but there was no sign of the rash. On 26th pain over left chest and arm was followed by the appearance of a large subcutaneous swelling over the painful area. 28th: Swellings had gone and rash reappeared upon extensor surfaces of legs and arms.

The calc. lactate was replaced by sod. salic. gr. 5—4 h. Now followed a period during which some improvement showed. Food was well taken, weight was gained, patient was allowed to sit up occasionally, but at least twice weekly acute pains returned with petechiæ, and tenesmus and blood in the stool.

| 12/8/06 ushered in another acute period, when all old symptoms returned, with several subcutaneous hæmorrhages.

By the 25th symptoms had again temporarily subsided, and patient was taken to Sydney, where he was seen by a "consultant," who is reported to have expressed strong disagreement with the previous diagnosis and treatment, and advised removal of the post-nasals forthwith. This was done, and the patient removed home. The symptoms continued, and the patient died about a fortnight after his return. No post-mortem was allowed.

The points of this case which seem worthy of record, apart from the rarity of the condition, were the extreme severity of the symptoms and the fatal issue. The causation of Henoch's purpura is at present unknown, though modern writers are more in agreement that some infective process is at work. Some observers (eight) have observed cocci in the blood, and one has found capillaries plugged with bacilli. The tonsils are considered a common port of entrance.

The present case seemed to be explained by the theory of infection, and the starting point of the process was probably the tonsils and adenoids or the slight gastro-intestinal trouble which was the onset of the illness. In view of the consultant's expressions and treatment the question arises whether one is justified in such a grave condition of performing even the slight operation of removal of growths and tonsils. Would the result have been different had the operation been done earlier or not at all?

REFERENCES—(1) *Scottish Medical and Surgical Journal*, April, 1908; *Lancet*, May 23rd, 1908, p. 1501; *Lancet*, May 30th, 1908, p. 1549; *Practitioner*, June, 1908, p. 823. (2) Henoch's *Festschrift*, 1890; *Osler, American Journal Medical Sciences*, Dec., 1896. (3) *Rotch, Pediatrics*, p. 895. (4) *Allbutt's System V*, p. 451. (5) *Practitioner*, June, 1908, p. 826.

DIPHTHERIA OUTBREAK AT BOULDER, W.A.

By R. A. Parker, M.B., M.S.

On the 16th April of this year at a meeting of the Boulder Municipal Council the attention of the councillors was directed to the existence of diphtheria in Boulder in epidemic form, and it was suggested that either the isolation camp at Lamington Heights, Kalgoorlie, then in course of erection, should be utilised by entering into an agreement with the Kalgoorlie Board of Health, who were in control of it, or that one of the private local hospitals should be engaged for the isolation of all diphtheria patients within our municipal boundaries.

The matter was delegated by the Council to a sub-committee consisting of three councillors, viz., the Mayor, Cr. Hartrey (a chemist), and Dr. Sawell, with power to deal with the outbreak as they might think fit.

On the 19th April the committee inspected Nurse Egan's hospital, and in view of new cases which had been occurring decided to take over the hospital forthwith. It was arranged that the hospital should be opened the following day to all the diphtheria patients of Boulder, and that the medical men should be urged to send all their diphtheria

cases into the hospital which had recently occurred and might occur during the period the hospital was open. It was arranged to pay £25 weekly for the 12 beds which the hospital contained and for the free use of the hospital. Nurse Egan was to provide food, nurses, and all the requisites for the upkeep of the hospital. The doctors were expected to provide their own drugs, and it was later arranged that antitoxin should be provided to all the Boulder district patients free of charge. The hospital was opened on the 20th April, and five patients were admitted that day. During the first week of the opening of the hospital arrangements were made with the Kalgoorlie Roads Local Board of Health for the admission of cases from their district. They agreed to pay their proportion of the expenses for the upkeep of the 12 beds and two guineas per week for all cases in excess of that number.

As the accommodation of 12 beds soon proved to be inadequate, the verandah of the hospital, which was large and capacious and which occupied all the space between the two main buildings of the hospital, was enclosed by walls consisting of a wooden framework covered with hessian, and these were well whitewashed. This measure provided an additional 14 beds, making in all 26 beds. Two guineas per week was paid for all patients over the number of 12. Temporary stretchers served the purpose of beds, and the cheapest mattresses were bought at the Council's expense, to be destroyed on the closing of the hospital. All the other requisites necessary for the upkeep of the further 14 beds were provided by the Council. A hand ambulance was obtained for the purpose of conveying diphtheria patients only. A disinfecter was erected, as it was felt that some adequate and proper means of sterilisation was needed for dealing with infected clothes, bedding, etc. This was built by Mr. Alder, the City Electrical Engineer, and proved very efficient from a bactericidal standpoint, as was well demonstrated later when over 1600 test tubes and swabs were prepared and none of them gave any bacteriological signs of contamination. All articles exposed in the steriliser were subjected to a temperature of over 240° F., and by turning off the steam to the inner chamber on completion of disinfection the heat from the outer chamber rendered the contents perfectly dry. The steriliser is made from an iron tank 4 ft. in all its dimensions. Fitted within is a second tank manufactured from No. 18 galvanized sheet iron. An air span of

three inches is allowed between the two tanks, and within this space $\frac{3}{4}$ in. piping 200 ft. long is arranged in a vertical position. This piping is connected with the main steam pipe of the boiler of the city electric lighting plant, which carries a pressure of 90 lb. to the square inch. A $\frac{3}{4}$ in. valve operates the steam to the line of piping. The other extremity of the pipe is open to the atmosphere for exhaust purposes. To the inner chamber a jet of steam is arranged on the square of the tank with $\frac{3}{4}$ in. piping. This also is connected direct to the main supply of steam, and is operated upon by a $\frac{3}{4}$ in. valve, thus allowing the admission of steam direct to the steriliser. On one side of the outer tank a door is provided, 3 ft. by 3 ft., which is riveted to a solid square flange of slightly larger extreme dimensions than the doorway. The door is hung on a pair of substantial plate hinges. On the square frame of the doorway a similar solid flange is fitted with rubber packing, thus providing a rigid steam-tight joint when both flanges are brought together under pressure of studs with butterfly nuts.

The floor of the inner chamber has its surface sloping to the front and thus ensures drainage into an opening here provided, which also serves for the escape of steam. The inner chamber is provided with two wire shelves. The original plan made provision for a thermometer to the inner chamber, also for an exhaust with valve through the roof of the tank. Asbestos covering to conserve the heat was also considered. The cost of the disinfecter was just over £30, and as everything, including wages, is very high in Boulder, we consider we have a very cheap and efficient means of sterilisation. In consequence of its connection with the boiler of the city electrical works, steam can be obtained by merely turning on the handle of the valve at any time and at little or no expense. This connection is of advantage when it is only required to use the disinfecter occasionally, when diseases are endemic or are absent in epidemic form.

The hospital was in charge of the health officer, but all the medical men of the city could send in cases and have control of their treatment. The hospital was opened on the 20th April and closed on 17th June. The total number of patients treated during that period was 73.

The following particulars are of interest, and will give some idea of the result of the work undertaken. The largest number of patients in hospital was 25 on any particular day, and

to be recovered on May 1st. The adults over 21 years formed about 14 per cent. of the total number of patients. Of the ten treated, three were males and seven females. The number of children treated was 63 of whom 31 were males and 32 females. Amongst this number are included all patients under 21 years of age.

Forms of diphtheria. The tonsils were affected with or without involvement of the pharynx, uvula and palate in 64 cases out of the 73. The larynx was affected in six cases. Nasal diphtheria occurred in three cases.

Deaths. Four deaths occurred: two were of the laryngeal type and two of cardiac involvement, one presenting marked bradycardia, and the other was due to affection of the vagus.

Complications. Neuritis was present in 11 cases. Four of these were vagal, and slighter cardiac affection occurred in two other cases. The legs were affected in five cases, and in four of these the patients suffered severe pains in the legs. In one case the arms were affected in addition to the legs. The palate was involved in two cases; one of these accompanied cardiac trouble, and in the other the legs were paralyzed. In some of the cases where the legs were involved the pain was a much more prominent feature than the paralysis.

Middle ear disease occurred in two patients. Glands of the neck were enlarged in 23 cases, and none broke down and discharged externally. Nephritis occurred in one case. Broncho pneumonia occurred in one case, although a few of the cases developed measles.

Operations. One intubation was performed, and two tracheotomies. Three of the laryngeal cases required no operative measures. Immunity doses of antitoxin were given to the nursing staff, maids and ambulance man, and none of them developed diphtheria.

Methods of isolation.—When the patients were conveyed to the hospital their homes were disinfected and all contacts in the house isolated, except the breadwinner of the family, and were kept under strict observation until after the return home of the patient, and until they had all been swabbed and found to be bacteriologically free. The nurse swabbed the affected patient on his return home, and if a negative result was obtained the patient was reswabbed together with the whole of the members of the household, and on a second negative result being returned the inmates were declared free after a further disinfection. The throats of all those in the affected house were put under local treatment with antiseptics. A number of instructions were given

by the inspector to parents and contacts, and an article on diphtheria provided by the Central Board of Health was distributed to the inmates of the house. The affected children were not allowed to attend school until they were free from the disease. When the hospital was closed it was thoroughly fumigated, sprayed, re-whitewashed and repainted.

Schools.—After the Easter vacation it was decided to close the schools and prevent any gathering of the children together. At the beginning of the outbreak no provision had been made for dealing with the epidemic. As the board realised that it had not the necessary staff to deal with it, it was decided to keep the schools closed, as this measure has been proved beyond doubt by the leading authorities to have a marked influence in the prevention of the spread of diphtheria. The closing of the schools was a temporary measure until such a time as the Central Board were prepared to assist us. This action resulted in the dispatch of Dr. Cumpston, of the Central Board of Health, to the Goldfields. He met our local board in consultation, and, as a result, he promised to try to arrange for the appointment of a nurse to swab the affected families' throats and supervise the isolation of all contacts. He also arranged to examine all swabs taken. He expressed himself pleased with the arrangements of our Isolation Hospital. He stated that he had no idea that diphtheria was so prevalent in Boulder, and quite approved of the steps we had taken. We are indebted to Dr. Cumpston for his assistance throughout the whole of the epidemic. One additional nurse was engaged by the Local Board of Health to enable us to undertake the work of opening the schools.

It was decided by the Local Board of Health to open the schools in sections, i.e., the number of children assembled at school each day should not exceed 200, which was the maximum number which could be swabbed and dealt with each day. These children, as soon as they were examined and swabbed, were sent straight home, and were told not to present themselves again at school until they were notified in the daily paper that they might re-attend. The children who were found to be free were then allowed to attend school, and those who were found to be carrier cases were isolated, together with all contacts in their homes. The swabs as soon as taken were sent to the Central Board, Perth, for bacteriological examination. The swabs were all numbered and the numbers o

the positive cases were telegraphed through from Perth daily. By this means we were enabled to localise over 120 carrier cases.

The throats of the carriers and contacts were put under local treatment, and after negative swabs were obtained, their houses were thoroughly disinfected. The results obtained have justified the systematic swabbing of the children at school.

REVIEW AND NOTICES OF BOOKS.

MANUAL OF MEDICAL JURISPRUDENCE, TOXICOLOGY AND PUBLIC HEALTH. By W. G. Aitchison Robertson, M.D., D.Sc., etc. London: Simpkin, Marshall & Co., Ltd., 1908.

This book, as stated in its preface, is not intended to compete with the many large text-books on these subjects, but rather as a guide to students preparing for examination. It would, in the opinion of the writer, be difficult to bestow praise too lavishly upon it as a text-book for students. The information contained in it is not only most accurate, but it is put in such a concise and clear manner that one feels a sustained interest in the subject right up to the last page. Its perusal would also prove most profitable to busy practitioners, who desire, with a minimum expenditure of time, to place themselves abreast of the modern views in each of these subjects. The book is divided up into three parts, viz. (1) Medical Jurisprudence, (2) Toxicology, and (3) Public Health.

Part I. is divided up into 16 chapters, all of which are admirably written, and follow one another in a logical sequence. The first two chapters deal with criminal procedure in general and with medical evidence in its various forms. Then follows a chapter upon the examination of the dead, with a brief but complete account of the signs of death. Chapter 4 is devoted to the questions of post-mortem examinations, suspended animation, premature burial, dying declarations, etc., and is completed by a most useful summary of the natural causes of sudden death. Wounds and their examination are disposed of in the three following chapters. An up-to-date account of the mode of examination of blood-stains is also included under the same heading. Chapters are also found dealing with regional injuries, and death from asphyxia and starvation. Chapter 11 is concerned with pregnancy in its medico-legal relations, and a good account of criminal abortion is also contained therein. The chapter following, which is one of the best in the manual, takes up the subject of infanticide, and puts in a very clear and concise manner all that a student requires to know upon this important subject. The subjects of birth in relation to civil law, impotency, sterility, rape, and unnatural offences are also well and fully described, and the first part of the volume is completed by two very fine chapters on insanity in its medico-legal relations, and on the important subject of life assurance.

Part II. deals with the subject of Toxicology. A very useful classification of poisons, based upon the symptoms produced, is adopted. The duties of practitioners in cases where poisoning is suspected are very clearly set forth in the opening chapter of this part of the book. The remainder of the part is taken up with a description of the various poisons arranged in groups under the headings corrosive, irritant and organic

poisons, and poisonous and irrespirable gases. Poisoning by such relatively new drugs as formalin and veronal is described. A short statement on the subject of delayed chloroform poisoning, which has of late attracted so much attention, is to be found in the chapter dealing with organic poisons. Under the heading of poisoning by coal gas, the important matter of the contained water gas is briefly referred to.

Part III. takes up the subject of Public Health. The chapters on ventilation, water supply, disposal of sewage, house and hospital construction, are delightfully written and full of valuable information on these subjects. Disinfection, infectious diseases, vital statistics and dietetics are also well described in separate chapters, and the work is brought to an end with a useful lot of information upon sanitary administration. After carefully reading this manual one can without fear of contradiction state that, for the purpose for which it is written, it is admirable in every respect. The work is well, though not profusely, illustrated, and the publishers are to be congratulated upon the whole get up of the book.

THE EXTRA PHARMACOPEIA. By W. H. Martindale, Ph.D., F.C.S., and W. W. Westcott, M.B. (Lond.). London: H. K. Lewis. Med. 24mo. Price, 10s 6d net.

The thirteenth edition of this handy, serviceable book contains, as might be expected, a considerable amount of new matter. Statements that have appeared from time to time respecting the working formulæ for pharmaceutical products, tests, solubilities, etc., have been subjected to examination by the authors in order to prove whether these were really practicable and accurate. It has been found necessary to alter the calculations of molecular weights of substances containing bismuth and nitrogen so as to make these accord with international 1908 atomic weights. Vaccines are reviewed, and the advances which have been made in the control of cancer. Opsonins the method of determination of the index is outlined and the literature on the subject abstracted, with notes on the preparation of the approximate vaccine. The bacteriological notes have been amplified by information on beri-beri, filaria, kala azar, malaria, ringworm, syphilis and trypanosomiasis. The analysis of patent medicines is given. The work is so well and favourably known that it is but necessary to add that the present book is more strikingly comprehensive than its predecessors.

A REFERENCE HANDBOOK OF OBSTETRIC NURSING. By W. Reynolds Wilson, M.D., Visiting Physician to the Philadelphia Lying-in Charity; Member of the American Pediatric Society, etc. Illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Melbourne: James Little. Price, 5s 6d net.

This little work, which is intended solely for obstetric nurses, is got up in a very convenient size and style. The author aims to present the details of his subject in simple form, so that they may be fixed permanently in the reader's mind. He recognises that a text-book of this character should deal with the practical points which, when mastered, constitute the nurse's stock of knowledge, rather than with medical consideration. The book contains 23 chapters and an index. It is thoroughly practical, and should prove of great use to obstetric nurses in teaching them how to prepare for all the usual obstetric operations, and generally to anticipate the requirements of the accoucheur.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 21st DECEMBER, 1908.

THE PREVALENCE OF SYPHILIS.

SYPHILIS was one of the subjects selected for discussion at the recent meeting of the Australasian Medical Congress in Melbourne. A discussion was arranged in each section, and then at a general meeting of the Congress the subject was presented from different points of view; and we think that in the diversity of opinions expressed, all who were present on that occasion found some food for reflection.

The resolution which had been drawn up at first by the committee appointed to deal with the question, in which it was asserted that syphilis was responsible for more suffering than any other disease, was wisely modified; for no one who was not completely "obsessed" with syphilis could maintain such a thesis. The resolution as modified, which was carried unanimously, merely asserted that syphilis was responsible for a very large amount of suffering, and with this everyone must agree.

The difference in the wording of these two resolutions reflects the diversity of opinion upon the prevalence of syphilis. One speaker maintained that 25 per cent. of the sick children of Melbourne were suffering from congenital syphilis, and that 13 per cent. of all the children in that city were suffering from this disease. We should hope, for the sake of the future of Victoria and its capital that such an estimate is, to say the least of it, a gross exaggeration. We all know that Professor ALLEN has had a very large pathological experience in Melbourne, and therefore we must give due weight to his opinion on

pathological questions; and when he asserts the prevalence of syphilis and bases his assertion upon his own experience, we are called upon to review the question and try to ascertain how far these views are borne out by experience of others in other parts of the world.

Now the prevalence of syphilis can never be reduced to any statistical statement. The subject is such that there must be a very large number of cases which are never reported and never come under medical observation. Consequently any statistics that are supposed to convey an idea of the prevalence of the disease in any community must be very erroneous. Individual practitioners whose special practice may bring them into contact with a very large number of syphilitic cases are obviously not competent to decide upon the question of the general prevalence of the disease. Others, again, may see a correspondingly small number of cases of syphilis and their opinion must also be erroneous.

Since, then, we have no means of estimating the prevalence of syphilis from a statistical clinical standpoint, some have attempted to ascertain the degree of its incidence by reference to post-mortem examinations, and, interpreting certain morbid appearances as of syphilitic origin, they are enabled to give a percentage of cases of syphilis in a certain large number of autopsies on hospital patients.

But this is just where the crux of the whole question comes in. What is a syphilitic lesion, and what is not? Until the pathologist can arrive at an unanimous opinion upon what are the diagnostic features of syphilitic lesions we must expect diversity of opinion upon the prevalence of syphilis from the pathologists' point of view. Of one thing we are quite certain, that no pathologist, however eminent, can dogmatise on a section of spinal cord which shows sclerosis, or upon a small fragment of an artery which shows some

changes in the walls and assert that these are syphilitic, in the absence of some clinical evidence which may support such a diagnosis.

If, as appears now to be generally admitted, the *spirochæta pallida* is the germ of syphilis, then the ultimate diagnosis of syphilitic lesions must rest upon the discovery of this organism in them. It is quite possible that many pathological conditions which we pronounce to be syphilitic may be produced by the *spirochæta*, but at the stage when they come under the pathologist's microscope the organism may have long ceased to be an active agent. But here, we think, is a wide field for investigation, and perhaps when the Congress meets again in Sydney in three years time further work will have been done to place the pathological diagnosis of syphilis on a firmer basis than the mere *opinion* of the pathologists; but not till this is accomplished can we hope to arrive at an accurate opinion upon the real prevalence of syphilis in any community.

INFANT LIFE PROTECTION.

WITH the steady decline in the birth rate in recent years, and the apparent difficulties which beset any attempt to raise that rate, the attention of the public health authorities and philanthropists has been directed to various methods for reducing the rate of infantile mortality. A very large amount of this mortality is due, as is well-known, to affections of the stomach and intestines, such as gastro-enteritis, enteritis, dysentery, etc., all of which are generally attributed to errors in infant feeding. Hence the attention which has been paid to the food supply, and since milk constitutes necessarily so large a part of the dietary of infants, special efforts have been put forth to place, as far as possible, a supply of pure milk within the reach of all classes of society. The establishment of municipal depôts for the supply of pure milk

has become an accomplished fact in some of the cities of Europe and America, and coming nearer home, we have the establishment of the Lady Talbot Milk Institute in Victoria, which was founded as a result of the intervention of the Victorian Branch of the British Medical Association, and which we have no doubt will be productive of an immense amount of good.

But the question of the rearing of healthy infants must be looked at from another point of view. The highest rate of mortality is always amongst the illegitimate children, and this is largely due to the fact that these unfortunate children are rarely suckled by their mothers. This raises the question of the influence of the natural feeding of infants upon the mortality rate.

The Research Committee of the Christian Social Union in England has recently published a report on the employment of mothers after childbirth:—"Of women whose employment consisted of household duties only, 433 out of 638 worked up to the time of their confinement, and 338 resumed their duties between the tenth and fourteenth days. The infantile death rate among the children was 126.9 per 1000; this was much lower than with the women whose work was industrial, whether performed at home or away, among whose families it reached 194.2 per 1000. The difference is but to be expected when it is borne in mind that the proportion of breast-fed infants is higher among the first class, and that careful hand-feeding is also much easier to ensure than for the industrial workers. The contrast between the result of maternal nursing and artificial feeding is also well pointed out by the mortality figures of the whole series, which are for the former 145 per 1000 against 230 per 1000 for the latter."

In the light of these figures and general experience it is clear that the way to effect any large reduction in the mortality rate is to

ensure that the infant shall be fed with milk which is always pure and suitable, and that is the mother's breast milk. It is interesting to know that this point has been seized some years ago by Dr. W. G. ARMSTRONG, the Medical Officer of Health for the metropolitan combined districts of Sydney, who laid before the City Council a plan for causing a large number of mothers to feed their infants in the natural way, and a woman inspector was appointed to act within the city boundaries. The duties of the inspector were to diffuse some general knowledge among the more ignorant of the mothers, and precautions necessary to the rearing of babies, but the prime duty was to recommend that they be fed exclusively from the breast. This work has now been going on for the last four years and the figures presented to the Board of Health recently show a progressive diminution in the infantile mortality rate corresponding to the increase in the percentage of mothers suckling their infants. In the year 1901 the infantile death rate per 1000 was 1.55, while in 1907 it has fallen to .81. Other causes no doubt have contributed to this reduction, but the figures are sufficiently striking to point out the importance of securing the natural nursing of infants for the saving of infant life.

THE MONTH.

A University for Queensland.

WE are glad to note that the movement for the establishment of a University in Brisbane is gaining ground, and we hope that the promise of the present Government to introduce a University Bill next session will be fulfilled. At the recent annual meeting of the standing committee of the Queensland University extension movement, very strong arguments were adduced by the speakers in favour of a beginning being made at once. The president, Mr. R. H. Roe, M.A., referred to the constant loss which was going on of many of the rising generation that had been

proved to be intellectually the best. A young State like theirs could not afford to incur this loss; but they would deservedly incur it until they provided a Queensland University for the education of Queenslanders. In conclusion, Mr. Roe said it "was clear that if the establishment of a Queensland University was delayed much longer, we must be content as a people behind the rest of our kindred in culture and intellectual activity and technical knowledge, and to suffer, as we deserved, in our material progress, which in these days was so closely interwoven with those higher educational facilities, in which we were conspicuously deficient." Dr. John Thomson (vice-president), in moving the adoption of the annual report and balance-sheet, regretted that there was no likelihood of a University Bill during the present session of Parliament, but he had it from a Cabinet Minister that a University Bill would be included in the business of the next session. There was every reason to believe that it was the intention of the Government to bring forward such a bill as early as possible. Mr. Henderson referred to amounts of money and scholarships which had been promised, contingent on the University being established in 1908, and the fear was expressed that these promises would not be renewed unless something definite was obtained from the Government regarding the University Bill. The Mayor of Brisbane is arranging a deputation to the Premier on the subject.

Mosquito Extermination.

The great importance of the mosquito as a medium for the spread of certain infectious diseases, such as malaria, filaria, yellow fever, and dengue is now well recognised, and large sums of money are being expended in countries in which these diseases are endemic, upon the extermination of the mosquito. The recent discovery in Brisbane that 17 per cent. of the admissions to the Brisbane General Hospital had filaria in their blood on admission, although the patients were admitted for other diseases, and showed no symptoms of filariasis, was made the ground for a deputation from the Queensland Branch of the British Medical Association waiting upon the Commissioner of Public Health, Dr. B. Ham, and pointing out to him the increase in filariasis in Brisbane in recent years. Sir Patrick Manson has shown that filarial diseases were caused through the drinking of water polluted by mosquitoes, and taking action on the

theory, Dr. Ham summoned a conference of medical officers of health to devise some means of exterminating the mosquito. Dr. Ham said he thought it was already clearly proved that tanks bred mosquitoes in Brisbane. Dr. Barker, of Wynnum, had induced residents to kerosene their tanks, with the result that mosquitoes were greatly diminished. He certainly thought one line of action the medical officers might take was to give the local inspectors of health instructions to clear allotments of broken bottles and other receptacles for water. Seeing that they were acquainted with some of the breeding places and habitats of the mosquitoes, it was not too much to ask for mutual co-operation to ensure their destruction. Some members of the conference expressed the opinion that the public would not fall in line in any plan of campaign proposed for the extermination of mosquitoes, but Dr. Taylor said he thought they were misjudging the public. Each member of the conference then pledged himself to make representation to his own particular local authority with a view to exterminating the mosquito.

Sweating Women Doctors.

Whatever views we may hold as to the necessity or otherwise of women doctors, we must all agree that a woman who has had the same course of training and passed the same examinations as men is entitled to the same remuneration for her professional services; but the Public Service Board of New South Wales seems to think differently. Recently applications were invited by this Board from qualified ladies capable of filling the position of assistant medical inspector in the public schools, at a salary of £200 yearly. The advertisement explicitly stated that the lady would be required to give the whole of her time to the department. The salary offered is lower than that received by some of the messengers. This matter was brought under the notice of the Council of the New South Wales Branch of the British Medical Association, and a deputation waited on the Minister for Public Instruction to enter a protest against a lady doctor being asked to devote the whole of her time to departmental duties for £200 per annum. Mr. Hogue appeared to realise that the facts of the case were unpleasantly suggestive of sweating, and promptly disclaimed any responsibility for the salary offered, which, he said, had been

fixed by the Public Service Board. The Minister indicated that though the advertisement stated that the lady would be required to devote her whole time to the service, the deputation might take it that an alteration would be made in that respect.

Tropical Medicine.

Some time ago a committee was appointed by the Senate of the University to enquire into the desirability of inaugurating a School of Tropical Medicine in connection with the Medical School, and the granting of a diploma in tropical medicine. At the last meeting of the Senate a strong recommendation was received from this committee in favour of the proposal; but, whilst favourably received, it was decided that for the present the matter could not be entered upon, owing to lack of funds. As, however, the need for some provision being made for teaching this important branch of modern medicine was recognised, it was decided that a post-graduate course, consisting of lectures and practical work, should be given at the Medical School. We understand that this course will commence with Lent term, 1909, and that the lecturer will be Dr. H. G. Bennetts, M.B., Ch.M. (Syd.), D.P.H. (Lond.), D.T.M. (Liverpool), F.R.C.S.E., who has made a special study of tropical diseases abroad. The course will be essentially a practical one, special attention being given to those diseases likely to be met with locally, and the hours of work will be arranged to suit those in general practice. Syllabus may be obtained from the Registrar, Sydney University.

Pure Food.

A bill was recently introduced into the N.S.W. Legislative Assembly by the Government which was practically the same as that introduced at the end of last year. The measure is a comprehensive one, and covers not only the question of adulteration of food, but also provides for the conduct of the sale of proprietary medicines which contain powerful and noxious drugs and narcotics. It also provides for the appointment of an advisory committee to assist the Board of Health in all practical scientific questions. The bill as originally intended has been amended in some details, but the main principles remain the same, and we feel sure that the bill will prove of great assistance in securing a pure food supply for the inhabitants of this State.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales

THE ordinary monthly meeting of the branch was held at the Royal Society's Rooms, 5 Elizabeth-street, Sydney, on Friday, 27th November, 1908. The President, Dr. G. H. Abbott, occupied the chair. There were about 30 members present.

The election of the following new members was announced:—Dr. Wilfred White, Sydney; Dr. C. E. W. Lyth, Wentworth Falls; Dr. G. R. C. Cotton, Walgett; Dr. R. O. Williams, Cessnock.

The names of the following candidates for election were also announced:—Dr. F. A. Rodway, Barraba; Dr. George M. Heydon, St. Vincent's Hospital; Dr. Frank O. Stokes, Sydney Hospital; Dr. John Innes-Stephen, Sydney; Dr. Douglas D. Jamieson, Katoomba; Dr. C. B. Howse, Orange.

The Hon. SECRETARY read a letter from Dr. Norman Dowling, of Young, thanking the Branch for the support afforded to the medical men of Young during their fight with the lodges of the district.

Dr. R. STEER BOWKER read a paper on the "Operative Treatment of Oblique Inguinal Hernia."

Dr. GORDON CRAIG said they were indebted to Dr. Bowker for the masterly way in which he had dealt with the subject, although there were one or two points in the paper to which he could take exception. In his recent travels, he found that Hamilton Russell was the only man in Australia who was known as an authority in hernia, and that Russell's views were becoming more and more generally accepted. Dr. Craig considered that in a recent case with a narrow neck, removal of the sac was all that was necessary. As to the smaller incidence of inguinal hernia in women than in men, a Chicago surgeon had gone into the subject and found that the internal oblique covered a larger area in women than in men.

Dr. HINDER said Dr. Bowker's method was the same as he had followed in nearly all his cases a few years ago, but he had abandoned it since hearing Hamilton Russell's paper. He did not think that Russell trusted to removal of the sac only in all cases; but he did not know what other method he used. In cases of hernia in young children and in young adults, removal of the sac was generally sufficient. If there was any doubt, the pillars of the ring should be dealt with. In some cases he had interlaced silver wire with advantage.

Dr. MAITLAND said most surgeons had worked out for themselves some special method of operating for hernia. He had not stuck to any one operation. In children, he was contented to remove the sac, without splitting up the aponeurosis of the external oblique. He had followed Hamilton Russell in that, although as a matter of fact, Lockwood was the first to recommend it. In young adults, where obliquity of the canal existed, he used to do Bassini's operation, but later on he abandoned it, and now followed Dr. Bowker's method. In elderly men, where the obliquity of the canal did not persist, he followed Bloodgood's modification of Bassini, and transplanted the sheath of the rectus to make up for the conjoined tendon. Dr. Bowker was to be congratulated on the way he had presented his statistics. He thought gloves should always be worn, not only by

the surgeon, but by the assistant and nurses. He was satisfied that better results were obtained by the use of gloves. He could not see any advantage in silver wire over chromicised catgut or kangaroo tendon.

Dr. T. FIASCHI thought all surgeons had gone to unnecessary trouble in devising new operations. He believed in Bassini's operation in all cases.

Dr. PALMER also believed in Bassini's operation (speaking from an anatomical point of view.) The conjoined tendon should not be made a constituent of the anterior wall.

Dr. BINNEY thanked Dr. Bowker for his excellent paper, but took exception to one part of it, viz., as to the operation in children. In his own experience he had only met with one case in children where simple ligature of the sac had not proved sufficient. He had lately operated on a child for recurrence, where simple ligature had been performed four years before.

Dr. CRAIG had learnt his hernia operation from Dr. Fiaschi—Bassini's—and had seen no reason to adopt any other. He had done about 50 cases by that method, and as far as he knew there had been very few recurrences.

Dr. BOWKER, in reply, said he did not think he was convinced by any speaker that his operation needed modification. He did not like burying wire. He considered it especially important to remove all fat around the cord.

Dr. JENKINS read a paper on "A Case of Appendicitis with Sub-phrenic Abscess."

Dr. CORLETTE read notes of "A Case of Sub-phrenic Abscess and Gangrenous Pneumonia after Appendicitis, followed by recovery."

Dr. T. FIASCHI showed a specimen, removed post-mortem, of sub-phrenic abscess on the left side, following a perforated gastric ulcer, and briefly discussed the case.

Dr. HINDER had had two cases of sub-phrenic abscess between liver and diaphragm, following appendicitis. Both had been operated upon and recovered. He thought that operation in these cases should be done early, if signs of trouble persist after first operation.

Dr. BOWKER had had two cases of sub-phrenic abscess; in one, the diagnosis of the sub-phrenic abscess was made before that of the appendicitis. He thought sub-phrenic abscess, due to appendicitis, occurred mostly on the left side. He thought the abscess was due either to (1) direct extension; (2) to extension by lymphatics, or (3) to septic-embolism.

Dr. MAITLAND had only seen one case following appendicitis, and that was on the left side.

Dr. GORDON CRAIG had had one case of the sub-phrenic type, and one case of the empyema type, after appendicectomy. Both occurred on the right side.

Dr. JENKINS in reply agreed with Dr. Hinder as to the wisdom of early operation, but his patient was away in Moss Vale, and the parents objected at first to further operation.

Dr. CORLETTE referred members to a paper in the British Medical Journal by Barnard, for an excellent description of sub-phrenic abscess.

A CLINICAL evening was held at Royal Society's Rooms on Friday, 13th November, 1908. Present: Dr. G. H. Abbott, President, in the chair; there were 35 members present.

Apology from Dr. E. J. Jenkins for non-attendance, owing to absence from Sydney.

Dr. C. SHEPHERD reported a case of Aniridia. Patient exhibited.

Drs. T. FIASCHI and D'OMBRAIN made some remarks on the case.

Dr. SHEPHERD replied.

Dr. TAYLOR YOUNG showed a myomatous uterus, the size of a uterus in the sixth month of pregnancy, which had caused a considerable amount of anxiety at the time of operation, on account of the great difficulty in deciding as to whether it was that or a pregnant uterus; a difficulty which was increased by the perfectly regular outline of the tumour, its distinctly cystic feeling on palpation, and, further, by the fact that there was an abundant secretion in the breasts. However, acting on the fact of the absence of secondary changes in the breasts, and taking into account the relationship of the round ligaments and Fallopian tubes to the fundus of the uterus, he decided to go on with the operation, a decision which subsequent section of the tumour justified.

Drs. Bullmore, George Armstrong, S. Sheldon, Worrall, Wm. Chisholm, discussed the case.

Dr. T. FIASCHI reported a case of "Surgical Emphysema Aerodermetasia."

Drs. CHISHOLM and NASH made some remarks on the case.

Dr. T. FIASCHI reported a case of "Rotary Dislocation of the Atlas." The patient was exhibited.

Dr. T. G. CAMPBELL made some remarks on the case.

Dr. LITCHFIELD reported a case of "Pernicious Anæmia in a Child." N.Y., a boy, aged 2 years 3 months came to him on October 8th. His extreme pallor and a lemon yellow tint of his skin at once suggested a grave form of anæmia. The parents are active and well; there are three other children all healthy; none of the family have died, and the mother has not had any miscarriages. The boy walked at 12 months, and, other than whooping cough at 6 months, has had no illness. He has never been a very robust child; but his mother did not become anxious about him till about 4 weeks ago. Except for a palpable spleen his organs were all apparently healthy. He was sent into the Children's Hospital, where Dr. Blackburn, Hon. Pathologist, made a complete examination of the blood. His report was as follows:—Hæmoglobin value, 25 per cent.; number of red cells, 1,100,000 per cubic mm.; number of white cells, 1200 per cubic mm.; colour index, 1x. Differential count (100 cells counted): Polymorph's, 47; Lymphocytes, 49; Myelocytes, 4. Nucleated red cells were numerous, and of 76 of these, 40 were megaloblasts. There was marked poikilocytosis, many myelocytes being seen. An examination of the fæces failed to reveal any evidence of worms. He left the hospital on October 19th, and, as he subsequently learnt, died on October 29th. He reports this case on account of the rarity of pernicious anæmia in children. As to what pernicious anæmia is, he said nothing. It may be a disease *sui generis*, or it may be the last stage of a secondary anæmia. At present one must look upon it as a clinical picture, rather than a clinical entity.

Drs. MACDONALD GILL, STACY, NASH, discussed the case.

Dr. LITCHFIELD replied.

Dr. CHISHOLM, for Dr. ISBISTER and himself, reported a case of Gallstone forming Cast of Gall-Bladder. Specimen exhibited. (1) Gall stone forming cast of gall bladder.—This was removed from a lady about 35, it caused little trouble; but was felt as a freely movable hard tumour, to the right of and above the umbilicus. (2) Malignant disease of Colon.—This occupied the lower part of descending colon. In spite of the great narrowing of the lumen of the bowel the two ends of the colon, after removal of the growth, were so nearly of the same size, and came so easily together, that an end to end anastomosis was decided upon. There was no mesocolon, and a large surface of the bowel was un-

covered by peritoneum. A drainage tube was passed through a puncture in the loin to the site of the anastomosis. The patient, an elderly woman, had a bad cough, and died at the end of a week, the symptoms pointing rather to lung complication than to peritonitis. She had peritonitis, however, starting from the line of suture. The case, being unsuccessful, was brought forward as an argument against end-to-end suture in these cases; some form of lateral anastomosis being preferable. The use of Paul's tubes was advocated, more especially in acute obstruction, as a temporary measure. (3) Malignant disease of Pylorus.—In this case pylorotomy was performed, the duodenum and cut surface of stomach were closed by suture, and then a posterior gastro-jejunostomy was performed. The wound was not dressed for a week, and the temperature remained normal. Some two ounces of sero-purulent fluid were found under the skin, and the skin incision opened up. The wound healed without trouble, and the patient is now up and taking ordinary food without difficulty.

Dr. CHISHOLM reported a case of "Appendix of Peculiar Shape." Specimen exhibited.

Drs. T. FIASCHI and WORRELL discussed the cases, and Dr. Chisholm replied.

Dr. ASPINALL reported a case of "Dry Gangrene after Carbolic Acid." The finger was cut with piece of brass one month ago. In Port Pirie, carbolic acid 1.80 was put on with boracic lint, and left on for 48 hours. On removal the finger looked black. Another application of carbolic acid followed, and was left on for 24 hours. Olive oil was next applied for three or four days. Arrived in Sydney on November 9th; doctor put on carbolic oil 1 in 10 and bathed with boracic acid. Taken off next day and reapplied. Finger bathed with boracic every three or four hours, and then carbolic applied.

Drs. CHISHOLM, HERSCHEL HARRIS, T. FIASCHI, discussed the case.

Victoria.

The monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, 11th November, 1908. Dr. Beattie Smith was voted to the chair in the absence of the president and vice-presidents.

In accordance with notice of motion given,

Dr. J. W. BARRETT moved—"That a deputation of the Branch wait upon the Honourable the Premier, and request that medical officers shall be appointed for the purpose of inspecting State schools and State school children and of giving instruction in hygiene." The Congress just held had passed resolutions in favour of the medical inspection of school children. It was not for the Branch to discuss details which would be a matter of administration later. He proposed that the *personnel* of the deputation be left to the Council of the Branch.

Dr. E. L. GAULT seconded the motion. It was lamentable that Victoria should be so far behind Tasmania and New South Wales in this respect. It was no new proposal, as we would have the experience of other countries and other States of the Commonwealth to guide us.

Dr. W. MOORE said that Congress had resolved to forward the resolution passed by it to the various Branches of the Association throughout the Commonwealth. He thus thought the present motion rather precipitate. He moved—"That the matter be held over until the Congress resolution was received."

Dr. E. RYAN seconded the amendment, as in his opinion there was no need for such haste.

Drs. NORRIS and JAMIESON spoke strongly in favour of the resolution.

Dr. W. OSTERMEYER thought that inspection might lead to conflict with the general practitioner. Would this not be in the direction of nationalising medicine? He would like to hear more about the details.

Dr. W. A. WOOD was surprised that there was any opposition to the motion. Many children were at present punished for inattention, the result of some defect in hearing, sight, or other defect in health.

Dr. J. A. O'BRIEN thought that nobody would deny the advantages of some system of medical inspection, but he did not approve of the proposal for a deputation. The Health Officer at present had large powers of inspection. Schools here differed much from those in the old world. Not more than 10 per cent. of State school children came of parents who were not members of a benefit society. He moved that the question be postponed until some details could be presented to the members.

Dr. NIHILL seconded Dr. O'Brien's amendment, and Dr. Moore withdrew his amendment in its favour.

Dr. BARRETT said that he was surprised at the note of disapproval. His notice of motion had been submitted for the meeting of Congress, and was quite independent of Congress. The resolution in Congress had been carried without a dissentient voice, and he had hoped that the same would be the case in the Branch. The urgency of the matter lay in the fact that the Education Estimates were before the House and that Mr. Tate, the Director of Education, had asked to have his hands strengthened.

Dr. O'Brien's amendment was carried by 24 votes to 23 on a division.

Dr. J. W. BARRETT also moved—"That this Branch cordially approves of the proposals made by the Defence Department that the medical staffs of the metropolitan hospitals should become members of the Army Reserve Medical Corps. It, however, suggests that the organisation would be facilitated by the adoption for this branch of the service of an inexpensive and uniform military dress with distinguishing badges."

Dr. MOORE seconded the motion.

Dr. FETHERSTON said that there appeared to be some misunderstanding in regard to uniform. The intention was that the reserve corps should not come into existence except in time of war. He saw no need of uniform at all. All that would ever be required was an inexpensive field-service uniform.

The motion was carried.

Dr. J. R. LEE showed a case of Rodent Ulcer treated by zinc ions, and read notes on the case.

The following letter from the Ballarat Division was then considered:—

"A sub-committee appointed to enquire into the appointment of medical officers of health have come to the following conclusions:

"1. That the present system of appointment has failed.

"2. That the present remuneration is inadequate to compensate for the loss of time taken from their private practice.

"3. That officers engaged in private practice find it difficult to report adversely to an offender who possibly may be one of their private patients.

"This Division therefore asks your support to the recommendation to the Central Board of Health—

"That the State be divided into districts, and officers of Health, who shall be excluded from private practice and properly qualified for the work, be appointed. It is further suggested that these officers might discharge the duties of pathologist and bacteriologist."

Dr. JAMIESON feared that this might lead to an academic discussion and lead nowhere. He thought the reasons disclosed for the resolutions inadequate. For example, the first simply said that the present system had failed. This might be said of almost any system. All were agreed as to the second point; but his experience as to the third was that health officers did their duty fearlessly and without favour. Theoretically there could be no objection to full-time health officers, but in country districts it would be impossible to do away altogether with local health officers and place a district hundreds of miles in area in the hands of one man. Full-time officers appointed over the present health officers might avoid some of the objections to the existing system. This might be done by increasing the number of Board of Health medical officers to aid and assist local officials.

Dr. RAMSAY WEBB considered paragraph 3 a gross and unwarranted libel on health officers, and thought it should be withdrawn before any consideration was given to any of the resolutions. As a health officer, he considered it an insult, and he moved a strongly-worded motion to that effect.

Dr. MOORE suggested a sub-committee to consider the proposals and modify them before submitting them to the next meeting of the Branch.

After a general discussion in which a number of members took part until a late hour, the following resolution was carried, on the motion of Dr. JAMIESON:—"That this Branch is prepared to discuss the general question involved in the letter from the Ballarat Division, but would prefer as a preliminary that the recommendations be put so as to allow of this being done without any apparent reflections being made."

West Australia.

ORDINARY monthly meeting was held at the Perth Public Hospital on November 18th, 1908. There were present: Dr. Seed (President), and thirteen others.

Dr. AMBROSE showed the man, three-quarters of whose stomach had been shown at the previous meeting, after removal for malignant disease.

Dr. MARTIN showed a jagged piece of steel weighing 3½ grains, which had been removed from a man's vitreous four days before. The piece had entered the eye via the cornea and through the pupil and lens, and was extracted by means of the Haab giant magnet. The eye is doing well.

After accounts and correspondence had been dealt with, the following new members were elected:—Drs. D. M. McWhar, J. M. G. Foley, C. C. Marshall, O. A. Feilchenfeld, E. T. J. Ick, and J. M. Hickinbotham.

The following officers were elected for 1909:—President, Dr. E. A. Officer; Vice-President, Dr. S. H. Montgomery; Hon. Treasurer, Dr. J. H. L. Cumpston; Hon. Secretary, Dr. A. E. Martin; Hon. Auditors, Drs. Leschen and Thorp; Members of Council, Drs. Veagur, Gibson, and Ambrose.

Dr. TRATMAN then read a paper, giving notice of a case of "Lupus of the Nose successfully treated by injections of Tubercle Bacillus Emulsion."

Drs. Officer, Cumpston, and Cleland discussed the paper.

Dr. SEED, in a few remarks, thanked members and officers of the branch for having done what they could to make the meetings during the year so successful.

South Australia.

THE ordinary monthly meeting was held at the University on Thursday, November 26th, at 8 p.m. The

President, Dr. A. M. Morgan, in the chair, and 29 members present.

Living Exhibits—

Dr. TODD showed a patient whose patella he had wired for fracture 16 days previously. The patient was able to walk about comfortably.

Dr. CUDMORE showed a youth who had swallowed his tooth-plate, which had been removed by means of Bruening's Oesophagoscope. The plate and the X-ray photograph, showing the plate in situ, were also exhibited.

Pathological Exhibits—

Dr. R. H. MARTEN showed: 1. A prostate weighing over 8 ozs., which he had removed by Lynn Thomas's combined perineal and super-pubic operation. He also showed a vesical stone from the same patient. 2. A tibia removed by amputation. A sequestrum had been removed 20 years previously by Dr. Stirling, but the wound had never ceased to discharge.

Dr. W. A. VERCO showed (1) the end of a uterine curette $2\frac{1}{2}$ inches in length, which had been removed from an abscess cavity in the posterior cul-de-sac. The patient had a miscarriage a month before, and had been curetted two weeks ago, after which she got worse. (2) The after-birth from a 4-para. There was a normally-sized placenta, and about 8 inches from it a placenta succenturia, nearly 4 inches in diameter. The blood supply formed a common cord to a single foetus. (3) A large lobulated tumour of the left kidney, which he had removed from a woman aged 29, for Dr. Brummit. It arose from the lower pole of the kidney, weighed nearly 5 lb., and its lower end was lying in the pelvis, in front of the uterus, and he had mistaken it for a multicellular ovarian cyst before operation. It was sarcomatous in nature. The woman did well.

Professor WATSON showed several specimens of horseshoe and of single kidney. 1. Dissection of female abdomen, showing acquired bilateral nephroptosis. 2. Dissection of female abdomen, showing the right kidney normal in size, shape, position and blood supply. The left kidney occupied the right side of the pelvis, and is served by the right (not left) common iliac vessels. Its hilum faces the pelvic wall. 3. Abdomen of a male adult; the left kidney is situated in the pelvis, and its blood supply is derived from the common iliac vessel of the alternate (right) side, it lies, however, on its own (left) side, and its hilum faces the observer. 4. Pelvic floor of a female, æt. 60, whose uterus had been removed for cancer and multiple fibroids three months previous to death. The left kidney occupies its own side of the pelvis, as in the previous case. Naturally, it was not interfered with at the operation. 5. Bladder of an old man with single left ureter and solitary kidney, evidently a case of congenital complete unilateral renal aplasia, on the right side. There is no right ureteral opening into bladder. 6. Sarcoma of right kidney, the size of a man's head. It was successfully removed a month ago from a lady æt. 29, and, before operation, was supposed to be an ovarian cyst. 7. Tuberculous kidney of a cow, showing pathologically enlarged calyces, and persistent foetal lobulation, which in man is only occasionally met with. 8. Injected kidneys from an old male, showing the blood supply in two leaflets, and small black calculus embedded in an upper calyx. Only a lucky surgeon would have removed it without serious hæmorrhage, because the infundibular ramifications of the renal pelvis are usually limited in calibre. 9. Semi-solid ovarian cystoma, the size of a large cauliflower from a 3-para, æt. 25, who was seven months pregnant when it was removed. It sprang from the right side and lay behind and beneath the uterus, which it pushed up so that the os uteri could not be palpated P.V. The uterus was delivered in a

hot towel before the tumour could be diagnosed or dealt with. Bleeding from back of uterus continued as long as uterus was outside the abdomen, but ceased at once on reposition. Patient did not abort. 10. Collection of photos and drawings of horseshoe kidney and renal vascular anomalies by Government Veterinary Desmond and Mr. Sinclair. 11. Spinal cord and membrane from a male, æt. 81, who died of senile decay. The spinal arachnoid is thickly set, and in places almost surrounded by calcareous egg-shell-like plates. 12. Loose internal semi-lunar cartilage from a man who twisted his knee six months previous to its removal last week by Dr. C. Todd. 13. Egg of Port Jackson shark, preserved in Kaiserling's fluid. The sphere of yolk on which the embryo reposes has retained its natural golden colour since 1901. 14. Florin-sized cancer of cardiac end of stomach, with secondary deposits in liver out of all proportion to the smallness of the primary growth, from a man, æt. 66. Admitted to the Adelaide Hospital on October 29th, 1908, under Dr. J. C. Verco, who has supplied the following particulars:— On admission, the patient stated that he was quite well till about three weeks before, and at work till two weeks before. He first noticed a tightness in his abdomen, and on swallowing his food, about one-half of it regurgitated. He vomited some blood two weeks ago. He has had no pain or jaundice. Has lost weight, he does not know how much, and has been getting weaker. Bowels costive, no mælena; no previous illness; no history of syphilis; his heart and lungs gave no abnormal physical signs, his urine gave no reaction for albumen or glucose. Liver was much enlarged, its margin was continuously palpable from the left costal margin about the midclavicular line, through the left hypochondrium, the umbilical region, and the right flank, reaching to an inch below the level of the navel. Rounded masses were palpable on its surface. A small amount of ascitic fluid was detected. He vomited frequently, bringing up a little blood, and had some epigastric tenderness. He died on November 2nd, four days after admission. The liver weighed $13\frac{1}{2}$ lb. (thirteen pounds, four ounces.)

Dr. J. A. G. HAMILTON showed a large ovarian cystoma, removed from a woman, æt. 26 years, five-para, six months pregnant. Mrs. K., last period early in July, commenced to have severe abdominal pains in September, which have remained ever since. Operation, November 25th: Pregnant uterus was delivered through median incision. An incarcerated, adherent, polycystic ovarian tumour, with twisted pedicle, occupied the pelvis. It was adherent to the lower posterior surface of uterus, from the left utero-sacral ligament fossa below, to the right uterine cornu above, close to cæcum. It was delivered from left to right, the pelvis filled with blood from the veinlets on posterior surface of uterus. The twisted pedicle (one turn) was tied off with two catgut sutures; the main ovarian vein was not included, but, as it was thrombosed, it was divided between two other ligatures. After ineffectually trying to stop bleeding from back of uterus, the latter viscous was reduced and bleeding stopped at once. Left ovary was normal in appearance, and was carried up by uterus, above the zone of adhesions. The tumour had pushed the uterus upwards and forwards out of the pelvis, so that the os could not be felt per vagina. It would have caused a mechanical obstruction to delivery at full term, but as necrotic changes had commenced, it would probably soon have become septic and caused general peritonitis.

Dr. SCOTT showed an appendix and a Meckel's diverticulum. He had removed the former for an attack of

appendicitis, and the latter for intestinal obstruction which supervened five days later.

Drs. Newland and Cudmore were elected to represent the Association on the Dental Board.

Dr. MARTEN then read his paper on "A Case of Chorion-epithelioma."

Dr. W. A. VERCO said in regard to chorion-epithelioma it is just possible that abortion takes place in these cases because of commencing trouble in the chorion, and that the chorio-epithelioma is the cause of the abortion, and not the result of it. Dr. Marten mentioned that most of these cases had some cystic condition in the ovaries. This may possibly be one of the causes of deciduoma malignum. In this condition the chorionic cells seem to have the power of unlimited growth, which may be due to the *lack of some normal secretion* which usually offers a distinct resistance to such excesses of growth. This resistance to the fetal enzymes and to the growth of the fetal cells may be due to the lack of an insufficient quantity of ovarian secretion in the blood, which of course would be more likely to happen in the case of ovaries maimed by a cystic condition.

Dr. SWIFT read his paper on "Gangrene of the Breast in a Diabetic Patient."

Dr. REISSMANN had not been able to find any record of a case such as Dr. Swift's. The case illustrated the importance of routine examination of the urine.

Dr. W. A. VERCO congratulated Dr. Swift on his paper, and mentioned two cases of diabetic gangrene which had occurred in his own practice.

Dr. MARTEN referred to a series of cases of diabetic gangrene upon which he had read a paper several years ago. One of the patients happened to have been the husband of Dr. Swift's patient.

Dr. F. MAGAREY said it was strange how in some cases of diabetic gangrene which appeared quite hopeless the gangrene spontaneously stopped and the patient recovered. He would like an explanation of this fact.

Dr. SWIFT, in reply, said that he was surprised that, for a diabetic, his patient passed so little urine. He thought that possibly the blow from a door determined the onset of the gangrene.

Professor WATSON read his paper on "The Surgery of the Kidney." He showed specimens and illustrations of specimens of abnormalities of the kidneys. He also demonstrated the normal blood supply of the kidney and variations from the normal.

Owing to Dr. Cecil Corbin's absence, the discussion on Dr. Wilson's paper on "The Statistics of the First Five Years of the Queen Victoria Maternity Home" and on Dr. A. A. Hamilton's paper on "Midwifery in Private Practice," was not resumed.

Queensland.

THE annual meeting of the Queensland Branch was held on Friday evening, December 4th, at the Technical College, Brisbane. Dr. Lockhart Gibson in the chair, and a fair attendance of members.

Dr. HALFORD exhibited the hat and boots of a woman, aged 69, who had been struck by lightning. In view of the interest shown in the case, Dr. Halford undertook to send notes of it to the *Australasian Medical Gazette*.

The reports of the Council, Librarian, and financial statement were read and adopted.

The PRESIDENT announced the election of the following officers:—President, Dr. G. L'Estrange; vice-presidents, Dr. D. Hardie and Dr. J. L. Gibson; Treasurer, Dr. A. Marks; Auditors, Dr. Edith Ure and Dr. Eleanor Bourne; Council, Dr. Robertson, Dr. Espie Dods, Dr. P. Bancroft, Dr. Turner; secretary, Dr. A. B. Brockway; curator, Dr. Love.

Dr. L'Estrange moved and Dr. Orr seconded, and it was resolved—"That it be an instruction to the incoming Council to revise the rules and resolutions of the Branch."

The PRESIDENT read his address, and, a vote of thanks proposed by Dr. Love and Dr. Turner, and supported by Dr. Halford, was passed.

Dr. L'Estrange took the chair, and thanked the members for his election to the position of President.

Western Medical Association.

THE half-yearly meeting of the Western Medical Association was held in the Council Chambers at Orange on November 18th. Proceedings commenced at 11.30 a.m. Members present were: Drs. Wilson (president), Daish, Lees, Graham, Freyer, Burkitt, N. Howse, Cribb, A. Rygate and Brooke-Moore; Dr. Crago was present as guest of the Association. Apologies were received from Drs. Machattie and Purchas.

The PRESIDENT, in welcoming members, said the thanks of the members were due to Dr. Crago for coming so far from Sydney to read a paper which, he was sure, would be greatly appreciated by all present.

Dr. CRAGO then read his paper, which was entitled "An Introduction to a Discussion on Midwifery, with Special Reference to Occipito-posterior Positions, Hæmorrhages, Eclampsia, and Extra-uterine Pregnancy." This interesting and instructive paper was discussed at length by all present.

The meeting then adjourned for the official lunch, which was held at the Club Hotel at 2 p.m.

On resuming, Dr. BROOKE-MOORE read a paper on a case of total obstruction of the cardiac end of the oesophagus treated by abdominal section successfully.

Several members having commented on and asked for details of the operation,

Dr. FREYER showed a case of gutter fracture of the right parietal bone successfully operated on by trephining; also the specimen of a case of extra-uterine gestation successfully operated on.

Dr. R. N. HOWSE showed some surgical specimens, and Dr. WILSON a prostate successfully removed from a man aged 76.

The SECRETARY read a letter from Dr. Antill Pockley, asking the Association to appoint a delegate to act on the General Committee of the forthcoming Congress, to be held in Sydney in 1911. Dr. R. N. Howse was elected.

Before the proceedings closed, the PRESIDENT expressed the thanks of the Association to Dr. Crago for his paper, which was the outcome of a vast clinical experience, and therefore far more valuable than one culled from different text-books. This vote of thanks was supported by other members, and was carried by acclamation.

The meeting closed with a vote of thanks to the Mayor and Aldermen of Orange for their kindness in leading the Council Chamber for the proceedings.

Messrs. Coffill & Co., of Sydney, have forwarded us a useful patented weighing balance for accurately denoting the weight of letters or other small articles up to 4 oz. On the reverse side is given the rates of postage for letters, newspapers, and books for the city and suburbs, the Commonwealth, New Zealand, United Kingdom and foreign countries. The balance is attractively got up; and Messrs. Coffill & Co. authorise us to state that they will be happy to supply any medical man with one of these weighing balances on application being made at their depots.

theory, Dr. Ham summoned a conference of medical officers of health to devise some means of exterminating the mosquito. Dr. Ham said he thought it was already clearly proved that tanks bred mosquitoes in Brisbane. Dr. Barker, of Wynnum, had induced residents to kerosene their tanks, with the result that mosquitoes were greatly diminished. He certainly thought one line of action the medical officers might take was to give the local inspectors of health instructions to clear allotments of broken bottles and other receptacles for water. Seeing that they were acquainted with some of the breeding places and habitats of the mosquitoes, it was not too much to ask for mutual co-operation to ensure their destruction. Some members of the conference expressed the opinion that the public would not fall in line in any plan of campaign proposed for the extermination of mosquitoes, but Dr. Taylor said he thought they were misjudging the public. Each member of the conference then pledged himself to make representation to his own particular local authority with a view to exterminating the mosquito.

Sweating Women Doctors.

Whatever views we may hold as to the necessity or otherwise of women doctors, we must all agree that a woman who has had the same course of training and passed the same examinations as men is entitled to the same remuneration for her professional services; but the Public Service Board of New South Wales seems to think differently. Recently applications were invited by this Board from qualified ladies capable of filling the position of assistant medical inspector in the public schools, at a salary of £200 yearly. The advertisement explicitly stated that the lady would be required to give the whole of her time to the department. The salary offered is lower than that received by some of the messengers. This matter was brought under the notice of the Council of the New South Wales Branch of the British Medical Association, and a deputation waited on the Minister for Public Instruction to enter a protest against a lady doctor being asked to devote the whole of her time to departmental duties for £200 per annum. Mr. Hogue appeared to realise that the facts of the case were unpleasantly suggestive of sweating, and promptly disclaimed any responsibility for the salary offered, which, he said, had been

fixed by the Public Service Board. The Minister indicated that though the advertisement stated that the lady would be required to devote her whole time to the service, the deputation might take it that an alteration would be made in that respect.

Tropical Medicine.

Some time ago a committee was appointed by the Senate of the University to enquire into the desirability of inaugurating a School of Tropical Medicine in connection with the Medical School, and the granting of a diploma in tropical medicine. At the last meeting of the Senate a strong recommendation was received from this committee in favour of the proposal; but, whilst favourably received, it was decided that for the present the matter could not be entered upon, owing to lack of funds. As, however, the need for some provision being made for teaching this important branch of modern medicine was recognised, it was decided that a post-graduate course, consisting of lectures and practical work, should be given at the Medical School. We understand that this course will commence with Lent term, 1909, and that the lecturer will be Dr. H. G. Bennetts, M.B., Ch.M. (Syd.), D.P.H. (Lond.), D.T.M. (Liverpool), F.R.C.S.E., who has made a special study of tropical diseases abroad. The course will be essentially a practical one, special attention being given to those diseases likely to be met with locally, and the hours of work will be arranged to suit those in general practice. Syllabus may be obtained from the Registrar, Sydney University.

Pure Food.

A bill was recently introduced into the N.S.W. Legislative Assembly by the Government which was practically the same as that introduced at the end of last year. The measure is a comprehensive one, and covers not only the question of adulteration of food, but also provides for the conduct of the sale of proprietary medicines which contain powerful and noxious drugs and narcotics. It also provides for the appointment of an advisory committee to assist the Board of Health in all practical scientific questions. The bill as originally intended has been amended in some details, but the main principles remain the same, and we feel sure that the bill will prove of great assistance in securing a pure food supply for the inhabitants of this State.

The conditions simulating rupture are given: Dystocia from pelvic deformity in a patient with a bipartite uterus, plural pregnancy with evidence of collapse during labour, coexisting tumour (ovarian or uterine), and impacted oblique presentation.

Treatment.—A. Prophylaxis: Cases in which the uterus has been previously injured by tears, incision, curettage, or disease, subsequent pregnancies should be under careful observation so that, should rupture occur, operation can be immediately undertaken. So, too, in cases, where previous labours have been difficult and protracted, owing to malformation of the pelvis or undue size of children. In the second stage, if any premonitory symptoms arise, delivery must be carefully completed. In contracted pelvis the degree of deformity and relative size of the fetal head and pelvis must be carefully calculated and the safest treatment instituted. As rupture occurs so commonly in neglected transverse presentations, it is of prime importance that such a malposition be early recognised and corrected, and the disastrous results of version in neglected cases borne in mind. A word of warning is given against the danger of performing vaginal operations, such as turning, etc., with a patient only partially anaesthetised, rupture in such being brought about by the operator employing undue force to overcome the resistance of the uterus. B. Active Treatment: 1. Child undelivered when rupture is recognised. If head presenting and can be easily reached, forceps extraction; often necessary to perforate, for often pelvis is deformed, head unduly large or in unfavourable position, or child dead or dying. If breech accessible, traction on one or both legs and perforate if any difficulty with the after coming head. 2. Child entirely escaped into abdominal cavity, foetus must be removed by abdominal section. 3. Child partially escaped through the uterine rent. Whatever the presentation is, the head is generally through the rupture. The course to be pursued depends on whether the attendant intends to continue further treatment himself or place the patient in other hands. The tear firmly grasps the child, which acts as a plug, and it should only be removed when the operator is ready to proceed with further treatment. The decision must be made between (a) removal of child per vaginam (best effected by bringing down one or both feet, rarely possible to complete by craniotomy or decapitation); (b) removal of child per abdomen (risk is infection of abdomen conveyed from the vagina); choose this route when the child's shoulders are beyond the tear. 4. Treatment of rupture after delivery: (a) Incomplete rupture—Plugging the tear with gauze, which should be inserted with the cervix steadied by a vulsellum; plug tightly if bleeding severe, loosely, especially if drainage tube inserted, which gives better drainage. In cases of incomplete rupture, in which the abdomen is opened under the suspicion that rupture is complete, do not remove the uterus but plug the cervix from the vagina and close the abdomen. (b) When the abdomen has been opened for purpose of extracting the child or when abdominal section is decided upon after the child has been removed from the vagina, the uterus may be dealt with—(1) By complete removal (panhysterectomy), most radical and theoretically the soundest. When done, the author advises the pelvis to be packed with iodoform gauze, the end of which is brought out through the vagina and it is left in three or four days. The belief is expressed that complete removal of the uterus with subsequent packing of the pelvis with iodoform gauze will ultimately give the best results. (2) Supravaginal amputation with retro-peritoneal

treatment of the stump. The advantages are that it is easier than panhysterectomy, takes less time, and is attended with less shock. The author regards these advantages as more than counterbalanced by the effects which result from leaving the ragged infected stump of the cervix behind. (3) Amputation of the uterus after Porro's method—Practically given up. (4) Stitching of the laceration and plugging. This has recently been advocated by Zweifel, but it is pointed out that it is very questionable if stitching the whole thickness of torn tissues is advisable, for it is not sound surgery to stitch a lacerated infected wound.

Repeated Pubiotomy on the same Patients.

Preller (*Zeit. für Gynakol.*, No. 2, 1907, abstracted in *Jour. of Obstet. and Gynec. of Brit. Emp.*, August, 1907). Pubiotomy is less dangerous than symphysiotomy, but it is not proved that it will yield better results. After symphysiotomy, birth occurred spontaneously on a subsequent occasion, but only one case (that of Reifferscheid) has been recorded in which, in a subsequent labour, spontaneous labour has followed pubiotomy, and in this instance the child was a small one. The scar between the divided bones was felt to be a finger's breadth in width, and it is to the extensibility of such fibrous union that the good after-results in future labours will be due. In Preller's patient, labour had ended three times in perforation; two living children were born, one died directly after birth, the other lived five days. Pubiotomy was performed after labour had lasted 22 hours. The patient got up on the fourteenth day, and could walk well on the twenty-fifth day after operation. Seventeen months later the patient was in labour again. After waiting 17 hours, pubiotomy was performed on the side opposite to that of the previous operation. The patient stood upright without help on the twelfth day, and left hospital 17 days after operation.

OPHTHALMOLOGY.

Vaccine and Serum Diagnosis and Treatment in Eye Disease.

In the July and October numbers of the *Ophthalmic Review* are articles by Percival Hay and Sydney Stephenson on the present position in regard to sero-diagnosis and sero-therapy. Vaccine diagnosis is practically limited to tuberculosis. The various methods (other than inoculation) introduced during the last few years are—(1) Scarification (v Pirquet's), (2) ophthalmic instillation (Calmette's), (3) inunction (Moro's), (4) inoculation of blister (Woodcock's). These are described in detail. The dangers attending Calmette's method are referred to. The vaccine treatment remained a prophylactic measure against smallpox till Koch, in 1889, proposed treating tuberculosis with tuberculin. More recently vaccine treatment has been recommended by Wright and others for diseases other than tubercular. Vaccine treatment is a method of active immunisation; it is only applicable by itself to chronic or sub-acute cases. Koch's tuberculin treatment fell into disrepute, and no more was heard of it till 1904, when Hippel proposed a new method, and published cases of tuberculous iritis, etc., which he had treated successfully during a period of ten years. According to Hay, v Hippel's method is probably one of the best, if not the best, forms of tuberculin treatment. The method of preparing and using the tuberculin is described. The initial dose is 1/500 m.g. T.R., gradually increased till 1 m.g. is given; v Hippel does not advise larger doses than this. As to the results

obtained by this method, v Hippel reported a cure in 23 cases of tubercle of the iris, and three cases of tuberculous conjunctivitis. Successful results in cases of tubercular iritis, conjunctivitis, keratitis, scleritis, choroiditis and retinitis by 15 or 20 other observers are recorded (names given), including many of the most distinguished ophthalmologists. Hay says that tuberculin does cure these cases; of this there can now be no reasonable doubt, but it is still open to question whether the cure as recommended by v Hippel is sufficient in all cases. There is some probability that the patient cannot be regarded as cured of the primary focus of the disease until he ceases to react to very much larger doses than 1 m.g. If when tested a few months after he has been discharged, he may be found to react to very much smaller doses than those with which he left off. In such a case the "cure" will need to be repeated. Ultimately he will not react to 150, 250, 500, and even 1000 m.g., even some time after the "cure" has been stopped. He may then be considered to be definitely cured. This is the treatment that is meeting with great success at the Stuttgart Sanatorium.

Wright's method of treatment, regulated by the quantity of opsonins in the blood, is next referred to. The question as to whether the opsonic index is a suitable guide is at present *sub judice*. The weight of evidence at present seem to be unfavourable. This unfavourable evidence does not refer to Wright's method of tuberculin treatment with small doses at long intervals, which is based upon the observation that the opsonic content of the blood diminishes after an injection of tuberculin, that it takes some time to increase and reach, or exceed, its former level, and that the results are better if the doses are small and are given during the increase in the opsonic content, or, as Wright puts it, during the "positive" phase. These observations are not challenged. What his critics doubt is that his method of determining the condition of the blood is sufficiently accurate to be of any use. Some investigators maintain that the index is useless, and others have pointed out numerous sources of error. Wright's index is an empirical one, and it suffers in consequence. We do not know as yet whether phagocytosis plays the important part attributed to it, or whether the opsonins play any part whatever in immunisation.

Tuberculin treatment, guided by the opsonic index, has been employed in eye affections by Snell, Hancock, Mayou and others. As was to be expected the patients benefited by the tuberculin treatment. Hancock and Mayou do not express an opinion as to the help they obtained from determining the index. They began by taking the index, but after it had begun to rise they went on with the treatment, guided by the local reaction alone.

A modified tuberculin treatment has been introduced by Spengler, of Davos. In his opinion the toxins of the human and bovine tubercle bacillus are mutually antagonistic and destructive. He asserts that human serum contains the agglutinins and precipitins for both types, and the bacilli can be distinguished in the sputum of the patient. Acting on this assumption he treats patients predominately affected with human tuberculosis by injections with bovine tuberculosis and *vice versa*. Allen has treated patients empirically upon similar lines. The results appear to be satisfactory, although no definite statements can be made.

Collin tried v. Behring's tulase lactin, or anti-tulase treatment for ocular tuberculosis. The tulase lactin produces active immunisation in the horse, and from

the horse the anti-tulase is obtained which may be employed for passive immunisation. Collin treated 12 cases with tulase lactin, 13 with anti-tulase, and 6 with both. Tulase lactin produced a general reaction with a rise in temperature, and in a few cases a local reaction. Anti-tulase produced a local reaction in recent cases, but none in old ones. The results of the treatment as regards the eye appear to have been promising.

Serum therapy has one great advantage over vaccine therapy, viz., it renders us independent of the isolation and cultivation of the micro-organism. The bacterium need not even be known. An example of serum diagnosis is the agglutinin test (Widal's reaction) for typhoid fever, and there is promise of the precipitins being useful in other directions. It is conceivable that the early cases of sympathetic ophthalmia contain a precipitinogen which would precipitate the precipitin of patients who had have the disease. This would enable us to establish a diagnosis of sympathetic ophthalmitis earlier and with greater confidence than we can at present.

Serum treatment and the progress made under it have been largely due to empirical fact, and a remarkable point is that sera appear to be non-specific—in other words, that it does not seem to matter what particular serum is used in the treatment of any particular disease. This fact seems to necessitate a readjustment of our ideas, for we have become so used to the supposition that the body produces specific bactericidal or antitoxic substances for any kind of organism that we are inclined to maintain an attitude of doubt. The new specific view, however, is the outcome of clinical as opposed to laboratory knowledge, and appears to be justified by experience. The names and examples of the observers compel us to accept their statements as accurate statements of fact.

For instance, Davies has cured hypopyon keratitis by the accidental injection of anti-diphtheritic serum. Giorella and Brindi cases of streptococcal stomatitis and gonococcal vulvitis by the same serum.

Davies has, with the same serum, cured cases of purulent conjunctivitis, pseudo membranous conjunctivitis, infection after cataract infection, perforating wounds of the eye, etc. Others report cures with this serum of cases of hypopyon ulcer due to the pneumococcus in infected wounds, iridochoroiditis, traumatic cataract. Burkard tried it in exophthalmic goitre, and saw good or excellent results in four out of five cases. Sydney Stephenson has used Burroughs Wellcome's polyvalent antistreptococcus serum with encouraging results in the treatment of gonococcal conjunctivitis, both in the newly born and in adults. Teutiere's thesis is devoted to proving that sera possess no specific action, so that in cases of hypopyon keratitis antidiphtheritic serum yields as good results as can be obtained from Römer's anti-pneumococcus serum.

Yeast serum, introduced by Deutschmann, is a polyvalent serum obtained from rabbits which have been fed upon yeast. Deutschmann found it useful in perforating wounds, hypopyon keratitis, post-operative infections, recurrent iritis, acute purulent irido cyclitis, a case of sympathetic ophthalmia (in which the exciting eye was not excised), gonorrhoeal infection, etc. His results have not yet been confirmed. Tetanus serum also has been successfully used in the treatment of corneal ulcers.

Drs. A. M. Cudmore and H. S. Newland have been elected unopposed as medical members of the Adelaide Dental Board.

NEUROLOGY AND PSYCHIATRY.

Lumbar Puncture in Optic Neuritis of Intracranial Origin.

Babinski and Chailions (*Annales a Oculistique*, July, 1907). Eight cases are reported. In the first there was compression with intracranial effusion due to a fall on the head. In five cases symptoms of meningitis were present. Syphilis appeared to be the cause in one. In three there was optic neuritis with paralysis of sixth nerve. A fourth had only optic neuritis as an ocular sign. In one the etiology was doubtful, but was probably due to meningitis.

In all these cases lumbar puncture gave good results, viz., rapid amelioration of the subjective symptoms in certain cases, and at times considerable diminution of the objective signs. In nearly all cases there was a notable diminution or disappearance of the oedema of the disc. The conclusions arrived at by the authors are that lumbar puncture ought to be considered as a curative method of treating optic neuritis due to intracranial effusion either of post-traumatic or inflammatory origin. In cases due to intracranial tumour it is only palliative. The puncture should be practised with caution, with the patient in the recumbent position; secondly, the fluid should be evacuated drop by drop, and in small quantity, 8-10 c.c. (and may be repeated when necessary); thirdly, the patient should lay up for some days.

Psychical Troubles due to Disturbances of Glands with Internal Secretion.

By Laignel-Levastine (*Revue de Neurologie*, Nov. 16, 17, 18, 19, 1908).

Thyroid Glands.—When the gland or its healthy secretion is insufficient congenitally the individual becomes an idiot or an imbecile. The condition may come on later during infancy, and is then less complete. Infantilism is sometimes the resulting condition—the adult retains the exterior forms of the child and the secondary sexual characters do not appear. Strangely enough some of these cases of infantilism develop fairly normally mentally. Thyroid insufficiency occurring in the previously healthy adult produces cerebral torpor. So far as cretins are concerned, one finds among them all stages of intellectual development. The complete cretin has no intelligence and can only progress on his hands and knees. He uses no words, only makes a discordant cry. There are other stages of this condition known as cretinous and cretinoid; these individuals are capable of manual work. Torpor and apathy characterise myxœdema, but sometimes one finds fixed ideas, hallucinations, delirium, and conditions of excitement. One form, which he calls chronic benign hypothyroidism, is especially interesting. This term seems to label numbers of cases that one frequently sees. It occurs in patients afflicted or who have been afflicted with adenoids. The chief characteristic is apathy. The patients are somnolent, easily fatigued, and very languid; everything appears to be beyond their powers, morally and physically. These individuals, who can hardly be considered as invalid in the ordinary sense of the term, almost always complain of headaches, backaches, lassitude, digestive troubles, constipation, palpitation, depression, singing in the ears, pains in the joints, poor memory, etc., from time to time. They present a picture of what Levi and Rothschild have called *fragmentary neurasthenia*. The remarkable efficacy of the exhibition of thyroid extract forms the ground upon which these cases are classed as suffering

from hypothyroidism. We have, therefore, two definite classes of hypothyroidism—the one characterised by marked myxœdema or cretinism, and the other by the vague ailments noted above. In the next place the author considers the typical disturbances of mind accompanying Basedow's disease—a condition of hyperthyroidism, as he considers it. The mental traits of these cases are too well known to make it necessary to recapitulate them. The point of great interest is his belief in a benign chronic hyperthyroidism with vague symptoms of palpitation, headaches, feeling of being too hot, local perspiration of hands or feet, emotional disposition, giving way to crises of tears, a feeling of restlessness, etc. He bases his conclusion on the fact that he sees in this group all the usual mental symptoms of Basedow's disease, only in a less marked degree, and also to some extent on the improvement produced by the use of anti-thyroid sera. It is obvious that he includes in this class many cases usually looked upon as hysterical or neurasthenic.

Parathyroids.—Of these there are four which in man are embedded in the posterior surface of the thyroid. There is evidence that a lack of their secretion may lead to symptoms of myxœdema, tetany, and possibly eclampsia in pregnancy. The cases in which the certainty exists of an insufficiency of parathyroid secretion are too rapidly fatal to permit of a study of the mental condition.

Thymus Gland.—Its physiology is very obscure and its pathology almost unknown.

Hypophysis Cerebri.—Giantism and acromegaly are symptoms of chronic trouble in this gland. Giants of this class have all a poor intellectual development. Lack of secretion of the gland has produced experimentally depression, cachexia, and lowering of temperature.

Supra renals.—The troubles here he classes in three groups—those of Addison's disease, those of acute insufficient secretion, and those of suprarenal arteriosclerosis. The mental symptoms in Addison's disease are asthenia, anorexia, and depression. There is arterial hypotension and muscular hypotonicity. He thinks the mental and muscular asthenia to be due to a lack in the cells of lecithin. In the condition of acute insufficiency one sees tonic or clonic convulsions, mental confusion, delirium with extreme agitation, or even torpor. For the mental trouble three theories have been advanced—a reflex, a suprarenal intoxication, and a tubercular intoxication. He believes in the second. The author next states that one finds cases where one can demonstrate that hyper-secretion of adrenalin has caused dementia through the intervention of cerebral arteriosclerosis.

Ovaries.—The author deals with the mental condition at puberty, menstruation, and pregnancy. He believes the chief part of mental troubles post partum are due to streptococcal or anaerobic infection, but is of the opinion that other cases are due to altered glandular secretions, and among these the secretion of the ovary. A mental state characterised by irritability, depression, apathy, amnesia, and mental confusion often follows ovariectomy. The menopause is also considered.

Testicles.—The effects of these he considers in connection with puberty, severance, castration, and pathological arrest of development.

Prostate.—The secretion has been shown to be experimentally tonic, hypertonic, and to have a marked slowing effect on the heart.

The author finally discusses pluri-glandular affections

MEDICAL MISCELLANY.

THE Chinese Government has taken its first drastic action under the new regulations covering punishment for the sale of morphine, in sentencing, on September 9th, a morphine seller of Peking to banishment for ten years for dealing in the drug. The limit of three months allowed for metropolitan officials to record the fact that they had ceased using opium has passed without a single man coming forward to sign the pledge.

The International White Cross Association, which was founded last year for the purpose of concentrating the fight with cancer, tuberculosis, and other epidemic diseases and social scourges, and of promoting the pure food movement, held its first congress at Geneva during this month. About 700 delegates were in attendance, and attention at this sitting was directed more especially to formulating plans for the regulation of food pharmaceutical products, and to considering the movements in this direction already under way in America and Europe. By thorough discussion the attempt was made to evolve a fair and reasonable definition of pure food, which would serve as a basis for uniform international legislation against food adulteration.

Dr. Hirschfeld, a German physician, has computed the quantity of alcoholic drink consumed in Berlin, and he announces that during the time investigated the consumption of beer was at the rate of 438,929,532 litres a year, and that large quantities of brandy and wine were also drunk. The average annual indulgence in alcoholic drinks per head is estimated on this basis as 236 litres, at a cost of about 100 marks. As the average income of the Berliner is less than 700 marks, it may be said that he spends one-seventh of his income for intoxicating drinks.

The medical inspectors of schools in Chicago made physical examinations of 5747 school children during the week ended October 3rd, and of these 2450 were advised to seek surgical or medical treatment. The defects found were as follows:—Nutrition, 143; anæmia, 208; enlarged glands, 748; nervous diseases, 49; cardiac diseases, 56; pulmonary diseases, 34; skin diseases, 101; orthopedic, 96; vision, 899; hearing, 124; nasal breathing, 240; palate, 30; teeth, 1620; hypertrophied tonsils, 1068; adenoids, 198; mentality, 61. The total number of examinations made in the schools was 9429, and the number of children excluded on account of contagious diseases was 372. The principal causes of exclusion were: Diphtheria and contact with diphtheria, 20; scarlet fever and contact with scarlet fever, 16; tonsillitis, 55; pediculosis, 105; impetigo, 87; ringworm, 17; measles, 6.

Dr. G. Sims Woodhead, of Cambridge, England, delivered the Welsley M. Carpenter lecture at the Academy of Medicine on October 8th. Dr. Martinez-Vargas, of Barcelona, who was to have delivered this lecture, was unable to be present. A large part of the audience was made up of delegates to the International Congress on Tuberculosis. A number of the foreign delegates have been spending a few days in New York, and have visited the Quarantine Station, Sea Breeze, Ellis Island, the Rockefeller Institute, and Bellevue Hospital, under the guidance of several New York physicians.

The University of Vienna has recently celebrated the centenary of the birth of Oppolzer, the eminent clini-

cian, whose statue now stands in the aula of the University. A statue was also recently unveiled to the memory of Professor Dittel, the father of urology.

Dr. Daniel D. Jackson, of the Merchants' Association Committee on Water Pollution, has been trapping flies during this summer at a station near Prospect Park, Brooklyn, and comparing the record of his captures with that of last year and with the Health Department mortality figures, to verify the theory that flies, and not hot weather, are responsible for the prevalence of intestinal diseases. He reports the relation between the number of flies captured and the number of deaths substantially the same as last year, the highest death rates occurring at the same time as the largest catch of flies, and a decrease in the number of flies being accompanied by a fall in the rate. Dr. Jackson thinks that the education which the people have had in last year in regard to the dissemination of disease by flies has probably had a share in keeping the death rate down during the summer of 1908.

The French birth rate seems to be progressively lessening. In 1907 there were 773,000 children born in France, and 793,000 persons died, so that the population decrease was 20,000. In ten years past this decrease has averaged 12,000 per annum. Race suicide among the French people is increasing prodigiously. One reason seems to be that the peasant is unwilling to subdivide his small farm among many heirs. The family of great wealth inherits by primogeniture, so that the younger sons of younger brothers, if any are born, strive for assured incomes in the professions, and, of course, find children an obstacle to this end. The basic causes, however, obtain not only in France, but throughout the civilised world. Our age is an age of the individual more than of the family; the modern educated man who defers marriage, is more efficient than two or three of his unlettered forbears. The world may gain, though the birth rate decline.

In the calendar of the Royal College of Surgeons of England just published there appear 1413 Fellows on the roll of the College, an increase of 26 compared with the number last year. There are 16,928 members and 3631 licentiates in midwifery. The licentiates in dental surgery number 2109. Holders of the diploma in public health granted by the Royal College of Physicians and Surgeons number 615. The income of the College from all sources amounted to £24,974 13s 3d, of which the fees paid by candidates for diplomas produced £16,164 4s 6d. The expenses of the year amounted to £21,181 0s 9d, of which examiners' fees compromised £8,677 12s. From June 1st, 1907, to June 1st, 1908, 12,769 people visited the museum. During the collegiate year the library was open on 252 days, and was used by 10,244 readers.

The Council of Ministers has sanctioned the introduction of a bill in the Russian Duma amending the regulations for the sale of spirits. The consumption of spirits is to be restricted by increasing the capacity of the smallest measure that can be sold to half a gallon, and by reducing the number of places where spirits can be bought. The inhabitants of villages are further given the right to close existing public houses, to prohibit the opening of new ones, and to limit the hours of sale by resolution of the local council. The bill also provides for the prosecution in the criminal courts of habitual drunkards, and imposes penalties for the illicit sale of spirits.

OBITUARY.

SIR ARTHUR RENWICK, B.A. (Syd.), M.D.,
F.R.C.S. (Edin.), M.L.C., Sydney.

We regret to record the death of Sir Arthur Renwick, which took place at his residence, in Burwood, on November 22nd, from heart failure following upon influenza.

The late Sir Arthur Renwick was the son of the late Mr. George Renwick, and came to Sydney when a boy. He was one of the first three to graduate as a B.A. of the Sydney University. He went to Edinburgh, where he took his M.B. and M.D., and F.R.C.S. He returned to Sydney and soon became one of the leading medical practitioners of the State. He was elected the first president of the New South Wales Branch of the British Medical Association. While quite a young man he became attached as an honorary medical officer to the Sydney Hospital, the Benevolent Asylum, and the Institution for the Deaf and Dumb and the Blind. For half his lifetime he was president of the Medical Board. The honours that fell to him were worthily won, and his intrinsic ability and personal character would have gained him recognition, no matter what profession he had adopted. He was elected to the Senate of the Sydney University, and later became Dean of the Medical Faculty, and was Vice-Chancellor of the University. Having from personal experience learned the disadvantages under which the young men laboured in having to travel to Great Britain for medical training and the hall-mark of high qualification, Sir Arthur took up the question, with others, of the establishment of a School of Medicine, and the foundation of the school became a reality.

Entering Parliament, he exercised his influence upon the legislation of the day, and did credit to the constituency of East Sydney, which returned him. During his Parliamentary career he was Minister for Mines, and afterwards Minister for Education. His services to the State made his elevation to the Upper House a well-deserved honour, and it may be said that Sir Arthur was one who fully appreciated his work in the Council, and did not spare himself when questions of great importance were under consideration. In 1892 he was appointed Executive Commissioner to the Chicago Exposition, and two years later was created a Knight Bachelor by Queen Victoria for his meritorious services to the State and Empire. He was associated with various commercial enterprises, and occupied seats on the directorates of several important companies and financial institutions.

It was in his social and philanthropic work that Sir Arthur has left the most enduring mark in the State. In connection with the Benevolent Society of New South Wales he became honorary medical officer in 1862, vice-president and secretary in 1878, and was elected president in 1879, which position he has held ever since. He regularly attended the board and weekly meetings of the house committee, and there was no one so closely identified with its work as he. When the old Benevolent Asylum buildings were demolished for the new Central Railway Station, the cherished hope of Sir Arthur to found a Women's Hospital on modern lines, for which he had been agitating for 30 years, became possible, and the Royal Hospital for Women, Paddington, the finest institution of its kind in the southern hemisphere, is the work of his energy and genius.

He was connected with the Sydney Hospital for about 46 years, and for 29 years controlled its work as presi-

dent. His association with the Deaf and Dumb and Blind Institution, Newtown-road, was of long standing, and he was president for many years. One of the chief acts of his life was the foundation of the State Children Relief Department, of which he was the author, and of which he was the first president, and his resignation of the control of that work, which he so successfully inaugurated, was induced by his desire to give more devoted attention to the other large and increasing public institutions with which he was connected. Amongst other matters, his association with the old-age pension scheme, the original committee of which he was president, is most important. The surviving members of the Benevolent Society's old board believe it was due to his determination in association with other earnest philanthropists that such a scheme was forced under public notice.

Amid all the toil and energy of his busy and useful life, however, Sir Arthur had a splendid helpmeet in Lady Renwick, and their personal friends remember the grace and beauty of their home at Abbotsford. In association with Lady Renwick Sir Arthur through a long life took the keenest interest in all movements for the moral welfare of the community and the advancement of true religion. There are few men to whom Sydney, now grown to such noble proportions, owes so much, and who have exhibited during his life such a devotion to public service.

His funeral took place at Rookwood Cemetery on November 24th. A service was held at the Burwood Congregational Church, and the cortege then moved to Rookwood. There was a very large attendance of representatives of all the institutions with which Sir Arthur had been connected.

We deeply regret to record the death of Dr. R. R. Whishaw, which occurred under tragic circumstances at the Willowburn Hospital for the Insane, Toowoomba, Queensland. He was struck on the head from behind by a patient, and his skull was extensively fractured. Death ensued in a few hours. Dr. Whishaw was originally in practice in Hobart, and had only been Acting-Superintendent at Willowburn Asylum for a few months. He leaves a widow and four children, who are staying in Hobart at present.

Animal Parasites in Australia.—Miss Georgina Sweet, D.Sc., of the Melbourne University Biology School, is a Government research scholar, and in this capacity is undertaking the investigation of internal parasites affecting animals in Australia. Her aim is to secure a scientific classification of these parasites. As they cause heavy losses of stock in Victoria annually, officers of the Stock Department anticipate that Miss Sweet's work will have valuable results. By direction of the Minister, the Chief Veterinary Officer is issuing a circular to stock inspectors, stock owners and medical men practising in country districts asking them to assist Miss Sweet in her work by collecting, preserving, and forwarding any specimens of internal parasites which they may have the opportunity of securing. In the circular Mr. Cameron points out that the necessity for this work and the importance of it from an economic standpoint to the varied live stock industries of the Commonwealth can scarcely be over-estimated. If reasonably successful, it will far exceed in importance similar work done during the closing years of last century by Miss Ormerod in England, and will result in reforms in the methods of eradication of parasitic pests of much greater monetary value.



THE LATE SIR ARTHUR RENWICK, K.B., M.L.C., M.D.

First President of the New South Wales Branch of the British Medical Association.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Lady Doctors and the Royal College of Surgeons—The London School of Tropical Medicine—Cancer Research—Hospital Statistics—The Sanitary Inspectors' Association—The Medical Service of the Territorial Army—Decrease of Crime—The New Commission on Sleeping Sickness.

At a quarterly meeting of the Council of the Royal College of Surgeons held on October 15th, with Mr. Henry Morris, president, in the chair, the report of the Council to be presented to the Fellows and members at the annual meeting was approved and adopted. Mr. H. H. Clutton, F.R.C.S., was elected one of the two representatives of the College on the Senate of the University of London in place of Mr. Henry T. Butlin, resigned. Dr. B. Moore, Professor of Bio-Chemistry in the University of Liverpool, was appointed an examiner in physiology for the second examination of the Conjoint Examining Board; and Mr. P. Sidney Spokes, M.R.C.S., was re-elected a member of the Board of Examiners in Dental Surgery. The Council nominated Mr. Ernest Haines Walker, formerly a student at Epsom College, and now at St. Thomas's Hospital, as the sixteenth Jenks Scholar. The scholarship is tenable for five years. In pursuance of their decision in July, the Council proceeded further to consider the question of the admission of women to the diplomas of the College, and the following resolutions were adopted:—(a) That steps be forthwith taken to admit women to the examinations of the Conjoint Examining Board in England and to the examination for the diploma in Public Health. (b) That women be admitted to the examinations for the Fellowship and to the examinations for the License in Dental Surgery. The lady doctors do not seem to feel much gratitude towards the College for these new privileges. According to a representative of the *Evening News* the following expression of opinion was made to him in the course of an interview with one of their number:—"The decision of the Royal College of Surgeons to admit women to their examinations, and to open to them their fellowships and diplomas is one more victory for women over antiquated precedent and prejudice. Personally, I do not see that the women doctors have much to be grateful for. They ask no favour in the College. Their request was to compete with men in their examinations, in order that by winning the degrees and diplomas of the College they might be able to compete with men on the same level in ordinary practice. The permission to do this has come tardily enough. It was bound to come sooner or later, and the College has held out as long as possible."

On October 14th the Earl of Crewe presided over the inaugural meeting of the winter session of the London School of Tropical Medicine, held in the Lecture Room of the Royal Society of Medicine, Hanover Square. There was a large attendance. The report of the Dean was read, and stated that the total number of students who had passed through the school since its opening in October, 1899, was 849. The number entered up to date for this year was already 106, so that they were well above the average. One of the most gratifying features in regard to the number attending the school was the fact that there was a steady increase in the proportion of the students who took the full three months' course. The students of the present session comprised eleven from the Colonial Medical

Service, six from the Indian Medical Service, four missionaries, and sixteen private students. About two-fifths of the students since the opening of the school were either in the Colonial Medical Services or had since joined them. In the course of his remarks the Earl of Crewe pointed out that the school owed its inception and success, to a great extent, to his distinguished predecessor, Mr. Chamberlain, and that no less a debt was due by those who were interested in the subject of tropical medicine to Sir Patrick Manson. He proceeded to say that the interest of the Colonial Office in the work of the school was a very real and direct one. They had in East and West Africa, to speak of those districts alone, some 200 medical officers, all of whom found it a part of their duty before taking their posts to study at the School of Tropical Medicine, either there or at the kindred school at Liverpool, whose merits no doubt they cheerfully recognised. So far as West Africa was concerned, taking the average of the last five years, 21 of their medical officers had year by year studied at the London school, and taking West and East Africa together the average during that period had been 30. The existence of the school was a great boon to the Colonial Office, because they possessed a very heavy double responsibility. They had in the first place their responsibility to the enormous masses of native populations who inhabited the colonies and the great protectorates under their charge. They undertook the care of those vast populations, and they had a sort of credit and debit account with them. On the one hand, this country gave them the general blessings of civilisation, of order, and of freedom to employ their labour as they thought best. Those were vast benefits; but there was something to be said on the other side. With civilisation there was introduced, he was afraid, some of the vices and troubles of civilisation. Therefore, if they were able to do something more on the credit side—something to fight the local scourges of disease—it was a great relief and comfort to them to feel that they were adding that much more to the credit of British civilisation. The second responsibility was to those who went out in their service. Apart from their medical service, they were sending out almost day by day to those vast African districts young men full of courage and full of the fine traditions of service which attached, he was glad to think, to those who served under the Colonial Office. It was a serious matter for one like himself, in whose hands was that patronage, to feel that those fine, enthusiastic lads were in many cases going out to a life of extreme risk. But those risks had been very largely diminished by the work of the Tropical School, and to the Colonial Secretary it was of very real comfort and relief to know that in helping those young men to start on the careers which they had chosen he was not sending them into such conditions of serious danger as those which, a few years ago, they were, by the nature of the case, compelled to undergo. He commended the interchange which had taken place between the school and the Royal Veterinary College at Camden Town. He had always thought, not merely in tropical medicine, but in the study of medicine generally, that it would be by no means a bad thing if doctors knew rather more animal pathology than they sometimes did. The opening address of the session was then delivered by Sir Clifford Allbutt, of Cambridge. He dealt principally with questions of prevention, and dwelt upon the great place preventive medicine was taking in the mind of society. He said it was of enormous importance, not merely that the medical profession should be alert in deep research, but

that they should make their purpose understood by the great lay public, without whom no progress could be made. In pointing out how the propagation of infectious disease was very largely a question of traffic, he said he alluded to that because an exceedingly important event was taking place in what he might call the Near East—the making of the railway to Medina, Mecca and Bagdad. The religious pilgrimage, as they knew, acted as one of the strongest possible carriers of infectious disease. The slow foot pilgrimages had been carefully watched, and every possible step had been taken to prevent the carriage of disease, but that must become difficult when they had swift railway communication between Europe and Mecca. The meeting terminated with a vote of thanks to the noble chairman and to Sir Clifford Allbutt, which was heartily accorded on the motion of Sir Patrick Manson.

The Executive Committee of the Imperial Cancer Research Fund published their third scientific report on October 13th. The first report appeared in 1904, and the second was issued in 1905. In the course of his introductory statement, Dr. Bashford says:—"We are still in the beginning of the systematic experimental investigation of cancer, in that preliminary phase where lengthened deliberation, the patient repetition, the augmentation and confirmation of seemingly important primary observations are required as guarantees of its foundations. Caution is as necessary as pertinacity and enthusiasm, and, though progress is slow, the following pages are evidence that since the second scientific report was issued a great deal of work has been going on in the laboratories continuously and profitably." Among the investigations which this report covers a paper is contributed by Dr. Bashford himself in which he deals with the incidence of cancer and its association with different forms of chronic irritation in mankind. Dr. Seligmann contributes an account of his observations on the occurrence of new growths in British New Guinea. The zoological distribution of cancer is reviewed and new observations are recorded by Dr. Murray. Dr. B. R. G. Russell has a paper on "The Nature of Resistance to the Inoculation of Cancer." The remaining papers deal largely with the tumours of mice, the natural features of their growth, and the experimental means by which they can be modified or inhibited. With regard to investigations carried out elsewhere Dr. Bashford complains that in many cases authors do not give the details necessary for the accurate repetition of their experiments, and it is consequently impossible to appraise independently the value of their results. As regards the treatment of cancer, the report says:—"There are no indications that an antitoxic or other serum will be obtained with curative powers, or that a prophylactic vaccine may be produced; but further investigation is indicated in the direction of preventing dissemination of a malignant new growth by enhancing the resistance of the organism, and by endeavouring to take advantage of the time at which experiment has proved that the cancer cells are most vulnerable. Meantime the rationale of the early surgical removal of primary tumours is amply justified by experiment, and no substitute has been found either by their means, or in alleged empirical remedies."

The magnitude of the work carried on by the Metropolitan hospitals and dispensaries is borne witness to by a statistical report which has been prepared and issued at the instance of the Hospital Sunday Fund. The figures have been tabulated from returns collected from 168 hospitals and 60 dispensaries. According to the tables, the total number of beds at 34 general hos-

pitals was 6126; the average number of beds daily occupied, 5106; the total number of in-patients, 75,417; total number of out-patients' attendances, 3,236,499; payments made by patients, £16,829; income, £706,757, being the average gross annual income during the last three years; expenditure £723,200, being the average gross annual expenditure during the last three years. The London Hospital may be taken as a fair representative of all its neighbour institutions, and from the detailed statement concerning it, we learn that, of a total of 922 beds, 792 was the average number in daily occupation. The total number of in-patients was 13,532; the attendances of out-patients, 570,375. The approximate cost of the out-patients was £14,259; the percentage of administration to total expenditure, 3.196; amount of patients' payments during the year, £2202; gross annual income and expenditure respectively (being the average gross annual income and expenditure for the last three years), £94,469 and £127,328. There were no investments. The approximate cost of an in-patient per week was £1 18s 2½d, and the approximate cost per head of an out-patient's attendance 8½d.

The annual conference of the Sanitary Inspectors' Association was held this year at Liverpool. Dr. Caton, the Lord Mayor of the City, presided at the opening meeting of the session on September 8th, and extended to the Association a hearty welcome on behalf of the citizens. The President, Sir James Crichton Browne, in the course of his inaugural address, said they had reason to hope that many of the worst diseases of the tropics would ere long be effectually controlled or abolished. It was not chimerical to speak of abolition of disease, as had been conclusively proved in the case of Malta fever. For some years past he had realised the colossal proportions of the sanitary work done in Liverpool, which had its reward in the gradual reduction of the death-rate by one-third—from 27.7 per 1000 to 18.3 in the last 25 years. The President referred to the great mortality amongst infants, and said the grand lesson taught was "Back to the breast as as much as possible." Everything possible should be done to induce mothers of all classes to nurse their own infants. But in cases where this was impossible the municipality must become the mother and wet nurse, and by providing dépôts for the distribution of prepared milk accomplish a gratifying saving of infant life. Discussing the question of tuberculosis, he urged the extension of the work of the Royal Commission. The experiments so far conducted had disposed of Koch's unhappy conclusions, and clearly showed that cow's milk containing tubercle bacilli was the cause of tuberculosis in man, but the matter required further investigation. On the subject of alcoholism, Sir James regarded Dr. Hope's use of the word "hopeless" in describing that problem of the sanitary reformer as too strong. He did not regard the prospect as at all hopeless. On the contrary, Dr. Hope himself agreed that a steady decrease in excessive drinking and its accompanying evils still continued—an experience general throughout the country. This was due to other causes than legislation. Declining to discuss the question from the licensing point of view, he believed all political parties were equally desirous of promoting temperance, but evidence as to repressive legislation in the United States was by no means reassuring. It showed that in prohibition States the drug habit was largely on the increase. He also felt that in very many cases people were not poor because they were intemperate, but intemperate because they were poor. Ameliorate the condition and habits would ameliorate,

accordingly. Amelioration depended in large degree on the housing question, and he believed the decline of intemperance in Liverpool of recent years was to be ascribed even more to the better housing of the poor than to a reduction in the number of licensed premises. The President next alluded to the question of disease carriers. Many hitherto unsuspected agents had of late been shown to be active in the distribution of disease. In the tropics various insects were active channels. In this country there was not the same risk, but we had insects which indirectly and mechanically smuggled disease about. As one fly was capable of producing some 25 millions of descendants in a single season, the fight must be a stiff one. Oysters and cockles were detected as conveyers of typhoid fever. Cats were suspected of clandestine traffic in diphtheria, and the wholesale operations of bovines in tuberculosis were clearly proved. Finally, there were human carriers. There were many instances in which disease was propagated by human contact; and cases had been shown where, after years of apparent recovery, the patient carried with him the germs of a specific disease which only required congenial ground to become active. Particularly was this the case in typhoid fever, even years after an attack. Pneumonia, diphtheria, and other diseases showed the same features in perhaps a lesser degree. Finally he referred to books as a medium of disease distribution, and drew a parallel between the physical and moral risks of unhealthy literature. As to moral contagion conveyed by books, the President recognised that the enormous bulk of what was issued from the press was wholesome. There were, however, "effluents of debased or sordid minds, loaded with putrescent material." The difficulty was that we had no adequate means of separating the foul stuff and getting it into the septic tank. There were novels—"hot novels" he was told they were called—that pandered to vicious tastes and excited unholty passions. These, and "journalistic rags," were public nuisances—cesspool literature which discomposed and debilitated the mind, and prepared the way for hysteria, moral paralysis, and nerve degeneration.

Army orders just issued state that the organisation of the medical service of the Territorial force is modelled on that of the regular army. The personnel will be distributed as follows:—The combatant units for general medical and sanitary work, to field ambulances, to hospitals, to the sanitary branch, to the administrative branch forming part of the head-quarters of each division. A medical officer who belonged to a volunteer corps may adopt any one of the following courses:—Remain with the Territorial force unit into which his old volunteer unit has been converted, transfer to the Royal Army Medical Corps Territorial Force, and remain attached to his present unit, or join a Royal Army Medical Corps Territorial Force unit, should a vacancy exist. There will be a fixed establishment of Colonels removed from the corps. They will be chosen by selection from the senior officers in the corps. Medical officers who belonged to Imperial Yeomanry Regiments and volunteer units, and who do not elect to transfer to the Royal Army Medical Corps, Territorial Force, and who remain with the Territorial Force unit into which their old unit was converted, or who join the newly-created combatant unit, will retain their rank and precedence, as in the volunteer corps, viz.:—surgeon-lieutenant, colonel, surgeon-major, surgeon-captain, and surgeon-lieutenant.

The report of the Commissioners of Prisons for the year ending 31st March last was issued on September 21st, by the Home Office, and contains some interesting

information. The report states that the number of prisoners received into local prisons during the year under sentence of penal servitude or imprisonment by the ordinary courts was 176,602, besides 501 soldiers, and sailors convicted by court-martials. There were also 17,918 persons imprisoned as debtors or on civil process, and 1,212 in default of sureties, making a total of 196,233, compared with a total of 199,282 in the preceding year, when there were 178,343 convicted by the ordinary courts. As an indication of the character of the crimes for which persons were convicted, it is stated that 61 per cent. of the males and 65 per cent. of the females were sentenced to two weeks' detention or less. Only 5.65 per cent. of the males and 1.99 of the females were sentenced to six months and over, and 1.16 per cent. of the males and .16 per cent. of the females to over a year. That the "professional criminal" element constitutes the bulk of our prison population is shown by the fact that of 134,519 males and 40,910 females sentenced to imprisonment, only 60,792 of the males and 10,246 of the females had not been previously convicted, whilst of the 1,132 males and 41 females sentenced to penal servitude, only 184 males and 7 females had not been previously convicted. The percentage of previous convictions in cases of grave crimes was therefore no less than 83.7. On the subject of juvenile crime, the Commissioners are glad to say that the diminution of offences by persons under sixteen years of age continues, the number of convictions of juveniles between 12 and 16 years of age having fallen during the past eleven years from 1630 to 566, or by nearly two-thirds. The number of children under 12 convicted last year was only 3, compared with 58 in 1897, the number of children of 12 and under 16 convicted being 548 males and 18 females, compared with 1541 males and 89 females in 1897. The Commissioners say:—"We have referred more than once to the remarkable decrease in recent years in the number of juveniles received into Birmingham Prison. Last year there were only 20, compared with 50 the previous year, and only 5 from the city of Birmingham itself. This year there were only 8, compared as with 20, and no case at all was received from the city of Birmingham, a singular example of the successful operation of the Children's Court in that city." With reference to this gratifying diminution in juvenile crime, the report of the Chaplain to the Dartmouth Prison is of special interest. In it he states that, during the year under review, all prisoners have been seen on arrival, discharge, transfer, application, under punishment, and separate confinement. The sick in hospital have been daily visited. The most profitable of all forms of visitation—the cellular—has been diligently and systematically carried out, especially in the case of juvenile adults and men in the long-sentence division. Men in the cellular labour party have also been periodically visited. From a chaplain's point of view, perhaps the most encouraging work is that carried on amongst the juvenile adults. A large percentage of these lads cannot be styled as "criminals," and they certainly afford every hope of becoming useful citizens in the future, especially now that they are so completely segregated from the older convicts. It is gratifying to notice that a good number of those as yet unconfirmed have come forward for that sacred rite of their own free will, and without any pressure whatsoever being brought to bear upon them. In cellular visitation amongst the juvenile adults, the reception accorded to the chaplain is invariably courteous; in fact, such visits are keenly sought after. The lads, without exception, warmly respond to any kindly advance made to them.

A new commission, under Colonel Sir David Bruce, has been despatched to Africa by the Imperial Government, under the direction of the Royal Society, to investigate sleeping sickness. The members sailed on board the German steamship *Admiral*, and should have reached the scene of their labours about the middle of October. Sir David Bruce, who is in charge of the Commission, and thus visits East Africa for the second time in connection with sleeping sickness, has with him Captain A. E. Hamarton and Captain H. R. Bateman, while Mr. James Wilson is also a member of the party. Lady Bruce, who has accompanied her husband on similar missions in Uganda, Zululand, and Malta, is also a member of the new Commission, and will take an active part in the investigations. During the past few months the members of the Commission have been closely studying the question of the medical treatment of this malady, which is causing such havoc in Africa, and certain broad facts have been established which will form the basis of the work in Uganda. It is held to be beyond question that (1) the disease is caused by a blood parasite; (2) that the chief and probably only carrier of the disease is the *glossina palpalis*. Investigation has also shown that the fly is only infective for 48 hours, and that it inhabits certain well-defined regions, consisting of a narrow strip of a few yards in width, round the shores of Lake Victoria and along the large rivers. On arriving at Mombassa, the Commission will travel by the Uganda railway to the terminus at Port Florence, whence the lake will be crossed to Kampala. The head-quarters of the work will be selected two miles from the lake shore, in a wild and depopulated region in the province of Chagwe. Here the Uganda Government has been preparing a laboratory and station for the purposes of the mission, and thence Sir David Bruce and his party will proceed with all possible speed. It is expected that the work will occupy about nine months, but naturally much will depend upon the measure of success achieved. Great value is attached to the idea of moving, wherever possible, the native population from the tsetse fly area to a healthy zone, more distant from the lake shore. The head-quarters will be within a short distance of one of the camps, to which infected natives have been removed, so that there will be plenty of material to work upon. Of first importance is the question why the *glossina palpalis* is the main carrier of the malady, and, therefore, the studies of the life history of the insect will be full of interest. While so far the ravages of sleeping sickness have been chiefly confined to natives in the Equatorial regions, it has of late years shown a disposition to spread even as far as Northern Rhodesia. It is interfering very seriously with the opening up of portions of the country, and complicates the labour question. Moreover, it is becoming a real menace to the white officials, among whom there have been several cases. A recent report of a French Commission on the French Congo, has proved the existence of cases among the European officials in that service.

CONTRACT PRACTICE ABUSE.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—Referring to the letter of "Reform" re "Contract Practice Abuse," it would seem very necessary that members of the profession should be protected from such widely spread and increasing imposition. It would help us much if we were to get distinct orders from our different B.M.A. Councils as to what to do or not to do. It would strengthen our position to be

able to say, "We are not allowed by our Branch of the Association to do this or that." It would let the people we were dealing with see that we were not acting on our individual "own," but had some central authority to direct us. If the professional penalties laid down for defaulters were carried out, such as not consulting with said defaulters, it would have a very telling effect, as nearly every lodge member requires at some time or another a consultation, and if he found that no one would consult with his particular medical officer—or attendant as they seem to be rather fond of calling them—he would sometimes come to the conclusion that said attendant was now and again a rather dangerous animal to have to do with.

Personally, I have been a good deal impressed with the fact that many of the rank and file of lodges have really no idea that any such organisation as the B.M.A. and its Branches exist at all, or, if they have, it is merely a benevolent society and a very foolish one at that, which is always trying to find out nice things for benefit of said rank and file. Possibly my experiences may be of some interest for future "new chums" like myself, and also, I suppose, "Reform," and even the more experienced may take some warning and be "taught to be cautious."

About six months ago I purchased a practice at Ayr, North Queensland, from a predecessor who was not a member of the B.M.A., and who, having a very good Kanaka salary up to about a year before, had been able to make terms with several lodges, namely, F.A. O.F. and Hibernians, which no one else could possibly have made without said salary.

To avoid inconveniencing the lodges, I said I would take them over for six months without signed agreement on original terms, when I found to my surprise, not to mention disgust, that they had not been in the habit of paying any mileage, professed to think that mileage was never in order, and did not want to pay it. This was a little disconcerting in a scattered district. My predecessor had taken them in when visiting the various sugar mills and had bothered very little with them at other times, so little, in fact, that a large number had been in the habit of going into Townsville, about 50 miles off. I also found that he had been provided by the courtesy of said sugar mills with nearly all his drugs, so that he found keeping on the lodges at the rates settled quite lucrative, especially that the members going to Townsville left him ample time for sugar growing, cattle dealing, and sport. The lodges consequently rather fell off, and even now only number about 60. When I took over the practice, as my predecessor, finding the Kanaka salary gone, wisely resolved to sell out, piously hoping "the white farmer should pay as well as the Kanakas." I commenced by giving them three sets of hours when they had had none before, and saw them also at any time, as allowing they were mostly at work during the day, the lodges became stimulated with a wish to increase their numbers at my expense. I pointed out to them that if every person was passed in the district, as one was now not subsidised to stay by a salary, there would not be enough to keep one man in the district. Finally I had to refuse flatly to take one of the best-to-do men in the district, owning sugar farm and race horses, and said to him, "If I pass a man like you, why should I not pass — and —?" naming several of the richest people in the district. His reply was, "If they want to get on to a lodge, they have a perfect right to do so." "Quite so, but not on to my sick list."

After consulting with many lodge medical officers, I finally offered one lodge—the Hibernians—terms which

pertained in a district exactly similar to this. They preferred to go to Townsville to be admitted to the combined friendly society and on to a doctor's list there. The medical men belonging to the B.M.A. naturally refused them, but another medical man, not belonging to the B.M.A., offered to take them on. Now I had not expected this, and particularly as having been offered an appointment on the Townsville Friendly Societies myself. I had refused because I thought there were medical men enough there.

In the discussion which took place relative to the admission of the Ayr Hibernian Lodge to the Combined Townsville Friendly Societies, the secretary of the latter had remarked that the terms "offered by the medical officer at Ayr were not unreasonable, considering the smallness of the population"; and no one disputed this. This therefore left the Townsville society committee in the position of supporting an unreasonable lodge against a reasonable medical officer, according to the showing of one of their own principal officers. I pointed this out to some of the Townsville officials, who quite admitted the precedent was a bad one, and that it would not have been done, only as two of the committee were candidates for Parliamentary honours they had backed them strongly as, of course, very naturally, wanting to get the general Hibernian vote. They also alluded to the weak point in my armour, namely, the medical man who took them. I told them that as I had submitted the matter to the Council of the Branch of my Society, I should have to report in full, and that I should not feel surprised if the Council was to communicate to them on the subject of such a committee supporting "an unreasonable lodge against a reasonable medical officer."

The answer I got showed the position of lodge rank and file in regard to any Association of the profession. "It might not be a bad thing if they did; our rank and file are very difficult to manage; they have little or no idea that such a society as the B.M.A. exists, and especially in North Queensland; they take the attitude they are the payers, the doctors the servants, and many of them respect the doctor less than a navvy." Moreover, there was added: "Even if your Council communicated, it would be quite possible that it would be passed that a not very nice answer might be returned." I remarked that an unpleasant answer "would very likely stimulate our fighting powers." I found, however, that the officials were quite aware that there was a growing difficulty in getting doctors for many lodges.

My other lodge (Oddfellows), numbering about 17, thought they had better have a try for another doctor, and are, I suppose, seeing what can be done in that direction. The chief grievance with them is that I am declining to admit well-to-do people on to the lodge. I have already one who makes over £1500 a year clear, and some who are clearing from £500 to £1000.

The work has been very heavy, as many people come here whose health has not been so good in other parts, and which has led to more medical work than in other and less tropical parts. As mentioned, the total number at present is about sixty, and not long ago a lodge member who saw the "lodge book" I had kept, remarked: "If there were 200 of them you could not look after them at that rate."

The chief points to be gathered from above are—(1) That our Association does not seem to be as well known to the lodge rank and file as should be the case. (2) That there is a great tendency, especially on the part of the richer lodges to compel a lodge medical officer to take on his sick list all the men of substance and position in the vicinity. Such a course is, of course, likely to be very serious to the profession.

Lodges are particularly anxious to have members admitted in this district, because as much the larger part of the population is, for some months of the year, from all parts of Australia, it would be a good incubating ground for all the Australian lodges, as members passed here could join any branch of their lodge elsewhere, while many of them being debilitated by a sojourn in the tropics, and in many cases also by the alcohol consumed, they would not be admitted by lodge medical officers if appearing as a candidate for admission for the first time.

To show the amount of medical work which can be required by energetic small lodges in the tropics, that in six months, with a total of 60 odd I have seen, either at my house or their own homes, 257 persons, have served out 145 bottles of medicine, practically none of which have been returned—(N.B.—To get a bottle, cork and label to Ayr costs nearly 3d.)—travelled over 200 miles, for which I have got no mileage; done a number of minor operations; got no midwifery, as the inhabitants never send one to a doctor unless they are in a tight corner. For all this I have received £46.—I am, etc.,

BOOTH-CLARKSON.

Ayr, North Queensland, Dec. 1st, 1908.

A QUESTION OF PROFESSIONAL SECRECY.

(To the Editor of the Australasian Medical Gazette.)

Sir,—The incidents of fiction have usually their counterpart in real life, and I have lately come across a case which calls to mind Joseph Conrad's clever psychological study called "The End of the Tether." As many of your readers may remember, this is the story of an old sea captain who becomes blind, but who continues to navigate his vessel with the aid of his Malay boatswain, in order that he may support a daughter married to an invalid husband.

The case I refer to is that of a middle-aged man who called on me and stated that his vision was becoming defective. On examination, I found that he had V₈ in right eye and about $\frac{1}{8}$ in left. The defect was due to commencing cataract. In addition he had marked monocular diplopia in the left eye, so that everything at a distance was seen double. There had been a similar diplopia in the right eye, but this had disappeared some time ago, as the vision grew worse.

The diplopia was made to disappear and vision improved in the left eye by a — 3 cyl. ax. 90° lens, but, of course, this benefit will only be temporary.

The point I wish to emphasise is that the patient informed me that he was a sea captain, and though he had not been acting as such for some time, he intended to take on the command of a ship again. I urged upon him that this was an exceedingly grave responsibility, which, in the state of his eyesight, he was not justified in accepting, but to no avail. He stated that he could get on all right, and that the officers under him could be relied on to maintain an efficient watch. Now, if it is possible for this man to get command of a ship, it points to a serious defect in our shipping laws.

It also raises an interesting problem in the matter of the ethics of professional secrecy. I suppose it is an accepted doctrine that the confidences of a patient must not be violated under any conditions whatever; but still it would be almost intolerable to see this man in charge of a ship and to know that the lives of many were possibly dependent on one who could hardly see at all, and what he did see he saw double!—Yours, etc.,

RICHARD ARTHUR.

211 Macquarie-street, Sydney.

A WARNING.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Perhaps you would be good enough to insert a warning to country practitioners in the next issue of the *Gazette*. The enclosed specious letter extracted an opinion from me (written) which enabled an enterprising, if unscrupulous, vendor of Dr. Chase's "snake-bite cure" to sell to over 100 people the "cure" at 23s 6d. He deftly manipulated my letter as a recommendation. My letter was written thinking him to be a new chum settler, with all the new chum's horror of snake bite.

Probably his *modus operandi* is the same in each country town, and a warning notice in the *A.M.G.* might prevent other country practitioners from giving unwittingly this nostrum-seller their countenance.—Yours, etc.,

W. J. MORTON.

Inverell, N.S.W., Nov. 12th, 1908.

[APPENDIX]

Dr. MORTON.

5/9/08.

Dear Sir,—An old friend of mine who is living in India has written to me that Dr. Chase's Snake-bite Cure is used extensively in that country, and is found to be very effective, and suggests that the idea might be valuable to me and the residents of this district. Snakes, as you probably know, are very numerous here. I have killed several this season already, and it is early yet. Before, however, relying on same and recommending it to all my friends, I would like your opinion on the subject. It is, I understand, a powder, to be rubbed in after the usual ligature has been applied and an incision made where the fangs have entered, so that anyone can use it without danger, and if really effective would be most valuable, as lots of the residents here are afraid to use the strychnine injection. He sent me the formula for same, which is as follows: MNO_2 , K_2 , CR_2O_7 , KMNO_4 . Of course I have no idea what this means, but suppose it contains all the necessary information to a medical man.

By kindly giving me your opinion on this you will be rendering a great benefit on all the numerous residents of this district, who are unhappily situated 20 odd miles away from the nearest doctor. With many thanks in anticipation, I remain, yours truly,

The Australian Army Medical Corps Reserve.

ATTENTION has lately been given to perfecting the details of a scheme for the formation of an Australian Army Medical Corps Reserve for the purpose of providing the medical and surgical staffs, both consultant and executive, for the treatment in time of war of sick and wounded of the military forces of the Commonwealth in such Government and civil hospitals as may be arranged with, and also to provide from those who have received the special requisite training the additional *personnel* required for light horse field ambulances, field ambulances, and other medical units. Colonel Roth, principal medical officer, has issued a memorandum detailing the objects and constitution of the reserve.

The A.A.M.C. Reserve will be composed of those already in the reserve of officers and any duly qualified members of the medical profession willing to be enrolled in the reserve, and recommended by the District Principal Medical Officer. These latter will

be graded—(a) consultant staff, (b) executive hospitals staff, and (c) duty with field forces. The duties of the first class will be chiefly consultative and executive. The second will form the medical and surgical staffs for the various Government and civil hospitals to which sick and wounded soldiers would be sent for treatment. The third section will be detailed for duty with the field forces and garrison troops, or with any Australian Army Medical Corps units which may require the services of physicians and surgeons.

In addition to the fully qualified medical men, the services of others will be made available. Students of medicine, chemists and chemists' assistants, members of recognised ambulance and first aid societies, and votaries of special trades demanding chemical or physiological knowledge, may also place their services at the disposal of the principal medical officer. In time of war all members of the Medical Corps Reserve may be called out for military service. During peace time duly qualified and registered members of the medical profession enrolled in the reserve may also be granted commissions in the Australian Army Medical Corps and transferred to the reserve of officers, Commonwealth military forces, on compliance with certain not very stringent regulations. The provisions of Commonwealth Military Regulation 134, dealing with the age for retirement, will apply to all ranks of the Australian Army Medical Corps Reserve, viz., officers 60 years, N.C.O.s. and men 60 years.

Officers of the reserve who have previously held commissions in the Australian Army Medical Corps will be paid in accordance with the financial and allowance regulations. Civilian medical practitioners enrolled in the reserve will receive remuneration on a scale to be specially laid down. Other ranks will receive the same pay as the A.A.M.C. No uniforms will be required or worn until the time comes for mobilisation.

Although the technical knowledge possessed by all those eligible for enrolment in the reserve will make them a valuable unit in the defence scheme, yet their lack of military training will at the outset work disadvantageously. To remove this ignorance, and give the A.A.M.C. Reserve a grounding in the rudiments of warfare, schools of instruction will be held periodically in the various States. These training courses will be open to all members of the reserve.

Honorary rank will be granted to members of the medical profession as follows:—Consultant staff and consultants, honorary rank of major; executive hospital staff, honorary rank of captain; duty with field force and garrison troops, honorary rank of captain. A syllabus of instruction will be issued shortly.

Cremation Society.—The Cremation Society of New South Wales held the first general meeting at the Royal Society's rooms last month. Dr. Creed, M.L.C., presided. The by-laws drawn up by a special committee were adopted, with slight amendments. The object of the society is to promote the practice of cremation, and to secure the co-operation of the national, state, and municipal authorities, with a view to the appointment of a qualified official in every district to make searching inquiries, as in most Continental countries, so as to decide upon the necessity or otherwise for an inquest in doubtful cases, before interment or cremation. Membership of the society is open to all who disapprove of the present system of disposing of the dead, and who desire to substitute cremation.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of November, 1908:—The registered deaths in the metropolitan municipalities numbered 462, after distribution to their proper districts of the deaths in all hospitals. The equivalent death rate is 9.75 per 1000 of the estimated mean population, and when corrected by the inclusion of the metropolitan share of deaths in the benevolent asylums of Parramatta, Rookwood, and Liverpool, it becomes 10.22 per 1000. Infectious disease caused 15 deaths, 6 of which were due to typhoid fever, 3 to influenza, 4 to puerperal fever, while diphtheria and erysipelas were each responsible for one. Diarrhoeal diseases caused 72 deaths, or about 10 per cent. below the average number of deaths from these causes in November in the past five years. Phthisis caused 21 deaths, or 35 per cent. below the average for November. Respiratory diseases, which caused 36 deaths, were 28 per cent. below the average. Cancer, with 40 deaths, and Bright's disease, with 27, were 10 per cent. and 15 per cent. respectively above the average. Diseases of the heart and blood-vessels (73 deaths) caused a mortality 11 per cent. above the average. The total number of attacks of infectious disease notified during the month was 206. Of these, 97 were due to scarlet fever, 70 to diphtheria, and 39 to typhoid fever. There were 128 deaths of infants under one year of age. This is equal to an infantile mortality of 101 per 1000 births, which is 8 per cent. below the quinquennial average for November. The principal causes of infantile mortality were:—Prematurity, 20 deaths; developmental diseases, 23 deaths; respiratory diseases, 12 deaths; diarrhoeal diseases, 56 deaths; convulsions, 4 deaths; tubercular meningitis, 3 deaths. No plague rats were caught, and no human beings were attacked by plague. Within the city of Sydney, 9 cases of pulmonary consumption were notified under the City Council's by-laws, and 8 dwellings were disinfected by the municipal staff after the death or removal of consumptive persons.

Food Adulteration.—During October, local authorities submitted 284 samples of food to the Board of Health for analysis. With the exception of several samples of milk from Liverpool and Lithgow, the whole of the samples were taken in the city and suburbs. Of 119 samples of milk submitted, 20 were found to be adulterated, two lots out of 56 samples of groceries were

not pure, and adulteration was detected in 9 out of 29 samples of sausages. In 14 cases the chemical evidence was such as would support prosecution if undertaken, and it was directed that 17 vendors be warned.

The Meat Supply.—The stock slaughtered at the Glebe Island Abattoirs during October, under the inspection of officers of the Board of Health, consisted of 25 bulls, 5210 bullocks, 1245 cows, 1962 calves, 4795 pigs, and 174,882 sheep. The condemnations included 3 bulls, 42 bullocks, and 24 cows, on account of tuberculosis; 141 calves, "unfit for food"; 126 pigs, tuberculosis; and 55 sheep. At 26 country and suburban slaughterhouses, 234,860 head, including 22 bulls, 271 bullocks, 617 cows, 105 calves, 3457 pigs, and 226,396 sheep were slaughtered, and the total condemnations numbered 351. At 5 bacon factories in the country districts, 2890 pigs were slaughtered, and of 104 condemnations, 101 were on account of tuberculosis.

Infectious Diseases.—Scarlet fever is rather prevalent in the metropolitan area, and, according to a statement furnished by the Board of Health, 105 cases were reported for the whole State during the fortnight ended November 2nd. 60 cases, with 1 death, occurred in the metropolitan districts, 19 cases in the Hunter River districts, and 26 cases (1 death) in the remainder of the State. 7 cases were reported in the municipality of Bathurst. The typhoid cases reported for the same period numbered 38, with 3 deaths, distributed as follows:—Metropolitan districts, 5 cases, 2 deaths; Hunter River districts, 11 cases; remainder of State, 22 cases, 1 death. There were 32 cases of diphtheria, with 1 death, in the metropolitan districts, 3 cases in the Hunter districts, and 28 cases in the remainder of the State.

Victoria.

Infectious Diseases.—The infectious diseases return for the fortnight ended 28th November, laid before the Board of Health, showed a distinct increase all round. The typhoid returns disclosed 26 cases and 4 deaths, as against 18 cases and 2 deaths, the average for like periods of the previous four years. Diphtheria showed an increase from the average of 47 cases, with 2 deaths, to 79 cases, without any death. Dr. Norris explained that in the case of diphtheria, the increase was more apparent than real, the authorities at the Infectious Diseases Hospital having delayed 16 reports until they were sure of the nature of the disease. Scarlet fever showed an increase from 7 cases and no deaths, to

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during November, 1908:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.							Per cent. Purification.		Incubator Test. Seven days at 57° C.
			Suspended Solids.	Chlorine.	Nitrogen as				Oxygen Absorbed	Albuminoid Ammonia.	Oxygen absorbed in Four hours.	
					Free Ammonia	Albuminoid Ammonia	Nitrites.	Nitrates				
Chatswood ..	..	M'rk'd Nil	2.2	12.4	1.370	.175	.013	.549	.760	93.2	89.5	No decomposition
Folly Point..	..	„	1.3	12.0	2.423	.133	.051	2.267	.658	90.0	88.8	„
Balmoral ..	..	„	1.5	17.0	.775	.157	.077	3.172	.702	87.3	87.2	„

75 cases and 1 death, but was reported to be confined to two districts.

Pure Milk Supply.—The Richmond Council last month, had under consideration the aims and objects of the Lady Talbot Milk Institute, which proposes, during five months in the year—from December to April inclusive—to distribute, with the co-operation of the municipal councils concerned, at the homes of the poor people in the cities of Fitzroy, Collingwood, and Richmond (a compact area), specially supervised, pure, healthy milk by a qualified and expert children's nurse. It was estimated that the average supply would be 1 pint per day for each infant under the age of 12 months. The cost to the institute would be 4d per pint during the experimental stage. Milk would be delivered in bottles supplied by the institute, with a special seal and means of storing so as to keep the milk cool and fit for use for at least 24 hours. Special supervised milk would also be available for citizens, who were prepared to pay 4d per pint for it. If parents could afford to pay, they would be expected to contribute part of the cost. The institute also intended to supply ice-chests and special supervised milk at creches during the summer months. Although Richmond's infantile mortality rate was considerably lower than in several other municipalities—its position being eleventh on the list of metropolitan municipalities—it was confidently anticipated that a large reduction thereon would eventuate if the council could see its way to vote £100 to £125 per annum. The nurse would visit the homes of all children born in the year 1908. A recommendation from the committee that the council place £100 on the estimates for the purpose set forth in the report was adopted by the council unanimously, and without discussion.

South Australia.

Health of Adelaide.—The Medical Officer of Health reports that during the fortnight, November 21st, 7 cases of diphtheria and 6 of pulmonary tuberculosis were notified. No case of typhoid fever, scarlet fever, or erysipelas was reported. Of the 7 cases of diphtheria, 4 were imported from the suburbs for hospital treatment. Of the remaining 3 cases, 1 was removed to hospital for isolation and treatment, and 2 are isolated at home. Of the 6 cases of pulmonary tuberculosis, 4 were imported for hospital treatment. Of the remaining 2 cases, 1 was removed to hospital, and 1 is at home under the city trained nurse's supervision. The city trained nurse had made 123 visits to 50 cases during the fortnight, and finally disinfected 8 houses. Of the 50 cases under her care, 12 were suffering from diphtheria, 34 from pulmonary tuberculosis, and 4 were contacts.

Diphtheria.—The Medical Officer of Health (Dr. T. Borthwick) presented the following report to the Adelaide Board of Health on the recent outbreak of diphtheria:—"During the last fortnight, 12 new local cases of diphtheria have occurred. Most of them have been connected, directly or indirectly, with Currie Street State School. In all, since the beginning of this outbreak, 27 cases have come under observation. As no case has been reported since November 2nd, and as all contacts have been carefully watched, it may be assumed that the outbreak is practically at an end. It is satisfactory to know that the action adopted, with the Board's approval, has been so successful, both in this outbreak and the one in North Adelaide. Briefly stated

this was as follows:—As soon as the first indications of an outbreak of the disease appeared, a memorandum was sent to the headmasters of all schools in the city, warning them of the danger of an epidemic, and advising them to send home for medical advice all children with a sore throat or ill from any cause. In the meantime, all known cases were isolated. In the course of investigation, it became evident that many mild cases were being overlooked, and were thus disseminating infection. When it became apparent that the second outbreak centred around the infant department of the Currie Street School, this part of the school was closed on my recommendation. The school-rooms concerned and their contents were disinfected, and the children who were sent home were kept under observation, swabs being taken for bacteriological diagnosis from all sore throats complained of. By this means the disease was promptly diagnosed, and the patient at once sent to the hospital. In addition, swabs were taken from the throats of all contacts. All this necessitated a great deal of work, and the services of an additional trained nurse had to be obtained, while one of the sanitary inspectors was told off for special disinfection work at the homes of the patients. A total of 38 patients has been reported, and 30 were sent to hospital for isolation and treatment. The accommodation at the Children's Hospital was taxed to its utmost capacity, and when this was exhausted, the patients had to be sent to the infectious block of the Adelaide Hospital. 19 patients are still in the hospital, but are all progressing favourably. Fortunately, the disease was of a mild type, and so far no deaths have occurred. The infant department of the Currie Street School was re-opened on November 10th, after a closure of two weeks. At one time during the outbreak, there was some indication of other schools becoming involved, but that danger appears to have passed."

Queensland.

Plague.—Dr. B. B. Ham, Commissioner of Public Health, reports for the five weeks ending December 12th:—*Brisbane*: 1. Plague in man.—No case of plague has occurred within the State during the period. 2. Plague in rodents.—2065 rats and 208 mice were destroyed, and 1662 rats and 192 mice were examined; date of last infected rat, 15th September, 1908.

West Australia.

The annual report for 1907-8 of the Mayor of the City of Perth has just been presented to the rate-payers, and contains some interesting references to questions of public health. A destructor has been instituted for the disposal of the city refuse; it is now in its second year of full work, and it has been found that the cost of working is lower than during the first year. The cost for labour works out at an average of 2s 6d per ton. This is a high rate when compared with the English results, but the calorific value of the rubbish is much lower here, the cost of labour higher. There has been considerable discussion as to whether the water supply for the city should be obtained from the Mundaring reservoir, which supplies the goldfields, or should be obtained by increasing the capacity of the present reservoir of the Canning River. The board of engineers appointed by the Government report in favour of the city supply being obtained from the Canning River area; the Mayor, however, strongly supports the use of the Mundaring reservoir for supplying the metropolitan area, as well as the eastern goldfields. The construction of the sewerage works in Perth is proceeding rapidly,

most of the main sewers and main branches have been constructed, but house connections have not yet been begun, owing to the fact that compulsory power has not yet been granted by legal enactments. The Water and Sewerage Act, 1904, although passed, has not yet been proclaimed, but as soon as this is done, the work will be proceeded with and completed. In May, 1908, a Fish Market was established in Perth, a by-law was framed by the Council, providing that all fish shall be submitted for inspection at the market before being sold, or offered for sale within the municipal district. This provided for very complete inspection of the fish supply for Perth. The Mayor of Perth pointed out that, although efficient inspection of meat is conducted at the main abattoir, there are a large number of private slaughterhouses from which the city is supplied, where inspection is not possible, because of the wide distribution of such slaughterhouses. The report strongly urges the necessity for the establishment and compulsory use of municipal abattoirs. Typhoid fever has been less prevalent than usual this year; but diphtheria on the other hand, has been rather more prevalent. The report of the Health Officer, Dr. W. P. Seed, on his visit to the Congress was dwelt on at considerable length, particularly in relation to the milk supply and to tuberculosis. The Mayor's report stated that it had been resolved to bring the question of tuberculosis before the next meeting of the municipal conference, in order that some united action could be taken to keep this disease within control, and expressed the hope that during the ensuing year some steps would be taken by the Health Committee of the city to secure the appointment of a milk commission on the same lines as those in existence in New York.

THE CONGRESS MUSEUM.

The exhibits in the Museum comprised:—

Angus & Robertson, Ltd., of Sydney, represented by Mr. E. C. Heyne, of 163, Collins-street, had on view a very full exhibit of the latest medical and surgical works. Amongst some of the latest works shown were:—Spalteholz, "Hand Atlas of Human Anatomy"; Butler, "The Diagnostics of Internal Medicine"; Fuchs, "Textbook of Ophthalmology"; Kelly, "Medical Gynecology"; Martindale & Westcott "The Extra Pharmacopœia" (13th edition); Osler and McCrae, "Modern Medicine, its Theory and Practice"; Williams, "Textbook of Obstetrics" (second edition); Corner & Pinches, "Operations of General Practice"; by various contributors, "A System of Syphilis," in six vols., fully illustrated with original illustrations, many of them direct colour photographs.

JAMES LITTLE, 430, Bourke-street, Melbourne, had on view all the most modern treatises on medical and surgical science, including "Keen's Surgery" (first three vols), vols. 4 and 5 being in course of preparation; Kelly & Noble's "Gynecology and Abdominal Surgery" (first vol. only just ready); "Greene & Brooks' on Genito-Urinary and Kidney"; "Barnhill & Wales on Modern Otology"; Campbell's "Surgical Anatomy"; "Scudder on Fractures," a new edition; Eisendrath's "Surgical Diagnosis" (just issued); "Robson & Cammidge on the Pancreas"; Moynihan's "Abdominal Operations"; Schultze & Stewart's "Topographic Anatomy"; Ander's Practice; Nothnagel's Practice; Saunders' Formulary; Borland's Dictionary (a complete illustrated medical dictionary); Sollmann's Pharmacology; "Peterson & Haines on Legal Medicine and Toxicology"; Webster's "Diseases

of Women"; Register's "Fever Nursing"; "Stelwagon on Diseases of the Skin"; Theobald's "Prevalent Eye Diseases"; Church & Peterson's "Nervous and Mental Diseases"; Saunders' Hand Atlases (in 26 vols, and Saunders' series of Question-Compends, in most convenient form for students.

CARL JACOBSEN & Co.'s "Quickeasy" system of filing records, with specimen books, cards, etc., showing the working of his "card" devices, proved a most interesting exhibit. Mr. Jacobsen's experience of hospital and professional requirements in London and elsewhere has enabled him to perfect a system of loose leaf, or card filing, by which an almost unlimited amount of record matter may be filed for reference purposes in a minimum of space. The "System" is composed of roll top table, drawers and boxes, etc., as may be required for special purposes, and the printed forms and cards are arranged in such a manner that the insertion of a very few words makes a full and comprehensive record of any case under observation. Indeed it is the busy man's everyday friend. The "System" has been introduced into the Melbourne Hospital, and is being installed at the Victorian Eye and Ear Hospital, whilst several practitioners in Melbourne have expressed themselves as more than satisfied with the way in which it reduces the amount of clerical work entailed in their practice, and also makes the work of reference easy and complete. Messrs. Jacobsen & Co. have their own factory for the preparation of their goods in Melbourne at 386 Flinders-lane, City.

A.P.F. (Australian Pharmaceutical Formulary).—Some little time ago the various Pharmaceutical Societies in the Commonwealth co-operated in publishing a book of approved formulæ under the title of the "Australian Pharmaceutical Formulary." This praiseworthy publication met with considerable success in the various districts in which it was brought under the notice of the medical profession. The principal object of the work was to endeavour to counteract the increasing tendency on the part of physicians to prescribe proprietary preparations, the composition and strength of which were in most cases unknown to them. With a view of furthering the movement, it was decided to take advantage of the Congress meeting, and the Pharmaceutical Societies of Australasia and South Australia combined in preparing an exhibit of galenicals representing the various preparations included in the Formulary. The display was a most interesting one. A handsome show-case was tastefully filled with bulk samples of the formulary preparations, which were contained in elegant cut-glass bottles, neatly labelled. To each doctor visiting the Museum a copy of the A.P.F. (together with samples of some of the preparations) was presented, and the advantages of prescribing A.P.F. in preference to proprietary preparations explained. Briefly stated, these are as follow:—A.P.F. preparations are non-secret; they are prepared as required from fresh drugs by pharmacists throughout the Commonwealth; the exact composition and correct dosage are known to both prescriber and dispenser (the contrary is the case with regard to proprietary preparations); the complaints often made by patients of excessive prices charged for proprietary preparations are avoided by adopting A.P.F. formulæ, which are dispensed everywhere at ordinary dispensing rates; and, finally, there is less likelihood of the patient purchasing further supplies without reference to the prescriber. The exhibits and samples distributed covered a wide range, but the following were some of the principal preparations displayed:—Syr. hypophos. Co.; Mist Pepsin; Co. c Bismuch; Liq. Santal Flav.; Elixir

Calisaya; Emulsio Ol. Morrhuæ; Liq. Thymolis Co.; Liq. Opii Sed.; Elixir Cascara c Glycerino; Liq. Euonymin c Pepsin; Liq. Pepsicus; Liq. Carmini; Mist. Bromoformi; Liq. Ferri Iodid; Lin. Alba; Elixir Glycerophos; Elixir Buchu c Juniperi; Syr. Pisis; Essence of Rennet; Throat Sprays, etc. The ethical nature of the display strongly commended itself to those physicians who inspected the exhibit, and the enterprise of the Pharmaceutical Societies in endeavouring to further the interests of pure pharmacy in such a practical manner met with general approbation. The A.P.F. committee desire us to mention that any doctor interested in the Formulary may have a copy forwarded to him, together with a sample of some of the preparations, free, on application to the Secretary of the Pharmaceutical Society of Australasia, 360 Swanston-street, Melbourne.

BURROUGHS, WELLCOME & Co., London and New York, had a very large and interesting display, which included a large number of serums derived from different organisms, some of the principal ones being for puerperal fever and for rheumatic fever. Micro-photos of various forms of bacteria were also exhibited, and also a large number of toxins of staphylococcus, polyvalent, gonococcus, typhoid, and others. Rather special attention had been given to the different extracts of the British Pharmacopœia, and there were also on view some particularly fine specimens of scale preparations. An assortment of tabloid medicine cases and also of first aid cases in neat and compact boxes of various sizes, each containing a complete assortment of requisites, formed a special feature of this exhibit. There was also a department of photographic chemistry, including a new developer and sepia toner "Rytol," the latter being a universal developer suitable for plates, films, or lantern slides.

Messrs. OFFENHEIMER, SON & Co., London, had a very full exhibit of bipalatinoids and palatinoids in great variety, the whole of their stock of British manufacture. Amongst the preparations shown were cocooids made up in chocolate forms for children, also tablets with chocolate bases. Concentrated liquors also formed an important part of this display. The "Universal" Vaporiser and Aeriser for the application of medicaments, hermetically sealed containers or "aseptules," with quantities of sterile preparations in very many forms, also attracted attention. Another of the exhibits of this firm was "Pulverette," a preparation with a chocolate coating, but capable of being easily crushed between the fingers, thereby rendering solubility (when taken) a matter of course, thus removing the objectionable feature of so many pill compounds which very often do not dissolve.

PARKE, DAVIS & Co., Sydney, Manufacturing Chemists and Biologists had a very extensive exhibit of their products, amongst which were their various adrenalin compounds, known as "codrenine" and adrenalin and cocaine solution for minor operations in surgery; buttermilk tablets; tuberculin tablets, for ophthalmic reaction; egmol emulsion; laxophen. This firm are appointed agents for Sir Almroth Wright's vaccines in their five different forms, prepared under the supervision of Sir A. Wright at the inoculation department in St. Mary's Hospital, London. They also had on view a number of glaseptic sprays and nebulizers, these instruments being constructed all of glass, in one piece. Amongst their glass exhibits were special antidiphtheric serum syringes, charged with supplies for single injections, and constructed in such a manner as to keep the contents perfectly sterile till required for use, when the simple breaking off of a glass seal rendered

the syringe ready for use, without having to transfer the serum to any other instrument.

CHARLES OGO & Co., of 76 Collins-street, Melbourne, had a very fine exhibit of sterils for eye work, in various strengths of cocaine, atrophine, homatropine, esserine sulph. zinc, etc., etc., also stovaine, composed of 5 per cent. sodii chlor, and 25 per cent. glucose for special injections.

A peculiar and interesting feature of this exhibit was the manner in which the various preparations were arranged in glass bulbs, ready for use, the different strengths being registered also by means of coloured points to the tubes, which enables the exact strength desired to be immediately discovered. The tubes contain only one application, and, being hermetically sealed, remain sterile, the ease with which the patent tubes can be fitted into a rubber bulb and the point broken off for use (as against the older method of sucking into a dropper) is simplicity itself, the empty tube being thrown away, and therefore no possibility of instruments becoming unsterilised.

This exhibit also included various forms of suppositories for ear and other work, a chart showing treatment in the case of poisoning, and patent rubber finger stalls.

Tuberculine, and many other compounds, all arranged in glass tubes ready for use, gave distinction to this exhibit.

MANHU DIABETIC FOODS, represented by Charles E. Hall, 12 McKillop-street, Melbourne, exhibited in a stall spread with the various preparations known under this heading, in the shape of flour, biscuits, flaked wheat, flaked barley, prepared barley, Manhu barley cocoa, and macaroni. All these forms being specially prepared on the Manhu principle, and are at once palatable and inexpensive.

BOSISTO'S EUCALYPTUS OILS were exhibited in a very tasty manner under the supervision of Mr. Browncombe, about 20 to 30 different samples of oils were shown, and the various eucalyptus extracts and compounds were clearly distinguished. Prominent amongst the extracts were piperitone, aromadendral, dextropine, phellandrene, and eucalyptol.

THE DENVER CHEMICAL MANUFACTURING Co., New York, represented by Geo. F. Williams, had an interesting exhibit of Antiphlogistine, an external application for inflammation and congestion. This product is prepared in four special sizes of tins, and the process of application in the many varied forms for which it is advocated, are fully shown in the illustrated handbook distributed to visitors.

POTTER & BIRKS, LIMITED, represented by A. H. Stuart, agents for Johnson & Johnson, Ltd., and Fletcher & Fletcher, Sydney, exhibited the well known "Red Cross" goods, principal amongst the articles displayed being their Belle Vue gauze bandage rolls, 1 yard wide and 10 yards long; odourless iodoform; iron dyed silk wire; linite waterproof operating aprons; Z.O. adhesive plaster; first aid ambulance outfits, in two sizes, containing a perfect equipment for field work; surgeons' therapeutic towels; concentrated liquors; also Lister's formaldehyde fumigators.

Messrs. SEABURY & JOHNSON, London, New York, and Sydney, exhibited a fine display of dressings of all kinds, surgeon's towels, absorbent cotton wool, etc., etc., in great variety, all sterile preparations of high antiseptic value. Considerable attention was paid to the exhibits of Argyrol and Ovocerin in their various formula, and also to the Plasmon foods shown on this stand. A preparation also of sterilised catgut and sterile silk was a not unimportant feature.

Nurse G. M. GREAVES, of Melbourne, exhibited an improved bed rest, which was awarded both first and

special prizes at the recent Women's Work Exhibition. The rest was displayed on a Lawson Tait bed, but is adapted for fitting on to any bed. The arrangement embodies many distinct advantages intended both for the comfort of the patient and for ease of manipulation. It can be adjusted with the greatest ease in any of its parts, having rests for the head, arms, knees, feet and back, each being separate, and any or all of the parts being removable without trouble. The whole apparatus is perfectly free from the bed, and all bedding is sterilisable. It presents a unique combination of adaptability and comfort.

T. GAUNT & Co., 337-9 Bourke-street, Melbourne, had on view a special line of students' microscopes and blood testing apparatus, also spectroscopes for blood testing. The various accessories to the microscope were in great variety, including microtome, for slide cutting, haemocytometer (Thoma's) for blood testing; clinical thermometers (with and without certificates); micro polariscopes; oil immersion lenses; Abbe's drawing apparatus; hæmoglobinometer for blood testing, and a full assortment of the Leitz manufactures.

Messrs. ALLEN & HANBURY, 42 Bridge Street, Sydney, showed a very fine collection of surgical instruments, all of British manufacture. This firm have recently fitted out the Royal Prince Alfred Hospital with instruments of their own make, and are the contractors for supply of surgical instruments and appliances to the British army and navy. Amongst the more recent instruments shown are some by Dr. Killian, Dr. Moynihan, and Dr. Lowe's special bone instruments, with all accessories in the shape of screws, plates, etc., etc., for reinforcing bone fractures. This firm also had on view various vaccines prepared at the Lister Institute, and a full complement of general requirements, amongst which might be mentioned their list of medical soaps. Mr. A. J. Firkin, manager for this business in Australia, was personally in attendance.

DONALD ROSS & Co., Sydney, had on view a most replete stock of surgical instruments and apparatus, being representatives in Australia for the Wimpole Institute for vaccines, also for the Bausch & Lomb-Zeiss microscopes, microtomes, etc., also an incubator for biological and opsonic work. Another instrument was Dr. Ber's cystoscope, for the examination of the bladder, and for catheterisation of the ureters. An electric switchboard, the "Multostat," a combination machine which can be adapted for driving lights, cautery, galvanic currents, drilling, massage work, etc., etc.

W. WATSON & SONS, of 78 Swanston-street, Melbourne, exhibited their intensified X-ray coil and motomagnetic break, which they claim to be the finest instrument yet designed for X-ray purposes. Some skiagrams taken by means of this coil were shown, and they indicate a great advance. Instead of the usual exposure of several minutes, these were taken in five seconds, and they are remarkable for the detail they show. Any part of the human anatomy can be taken in from ten seconds to the fraction of a second. Messrs. Watson also exhibited the latest patterns of X-ray tubes, protector devices for operators, and other apparatus connected with the production and application of X-rays and high frequency currents.

The well known firms of Alwyn Fischer & Co., Felton Grimwade & Co., Locke, Thompsitt & Co., Francis & Co., Denyer Bros., Warner, Webster & Co., Meyer, Meltzer & Jackson, had extensive exhibits of chemical and surgical instruments, the latter firm having a most excellent display of glass ware for laboratory work.

There was also on view Madden's Patent Automatically Cleaned Filter, which attracted considerable attention.

During the course of the Congress, Messrs. Felton Grimwade & Co. gave a number of very instructive and interesting experiments with liquid air. This firm also gave an exhibition of scientific glass blowing in the construction of glass apparatus for chemical and other work.

Insanity in Australia.

Victoria.

DR. W. ERNEST JONES, Inspector-General of the Insane, reports that on January 1st there were on the registers of the department 4937 persons certified as insane; at the end of the year (December 31st, 1907) there were 5052 persons. These figures show an increase of 88 in the numbers on the books of the State hospitals for the insane, and an increase of 27 on the books of the private licensed houses, or a total increase of 115 in the number of the registered insane. There were also 18 more persons under observation in receiving hospitals and wards at the end of 1907 than at the beginning of the year. There is now in the State of Victoria one registered insane person in every 249 of the population.

Admissions.—During the year there were admitted 728 cases; of these 87 were re-admissions, and 641 were first admissions, while 138 had previously had attacks of mental disorder. The number admitted into the hospitals is actually the lowest since 1900. A rather large number of elderly persons were received, 54 being over the age of 70 years, whilst 59 more were between the ages of 60 and 70 (inclusive). General paralysis was diagnosed in 42 cases, and of single causes of insanity, alcoholic intemperance appears as the most potent, 64 cases being attributed to it. As in previous years, the heredity return is very low, and is reported in only 57 cases out of 728, whilst congenital cases number 56.

Discharges.—The number of patients discharged recovered during the year was 219, whilst 68 were discharged as relieved. This was, on the whole, a very low return, the recovery rate of 30.08 per cent. being the lowest since 1897; the relieved rate, on the other hand, was rather above the average. In the report for the previous year, as well as that for 1907, the superintendents of the various hospitals comment on the unfavourable class of case received. This, with the greater use of the Reception House, as well as the increased number sent out on trial leave, accounts for the fall in the recovery rate.

Deaths.—During the year, 328 patients died, giving a percentage of 7.17 on the average numbers resident. This, with the exception of the record for 1906, was the lowest for many years. Tuberculosis or tubercular disease of the lung was responsible for approximately 14.3 per cent., and general paralysis for 6.7 per cent. of the deaths.

YARRA BEND.—At the end of 1907 there were 943 patients on the books, an increase of 23 on the numbers at the end of 1906, while the number on leave, 98, was only 1 more; 223 patients were received during the year, of whom 35 were re-admissions. This falling off in receptions is probably due in part to the opening of the Receiving House during 1907, and in part to the continued use of the probation system. Both these have certainly been factors in the decreased recovery rate, which numbered 59, as against 81 in the previous year. During the year a hospital ward was opened

on either division, each to accommodate 48 patients. These have temporarily relieved the overcrowding, and are working well.

Kew.—At the end of the year 1907 there remained on the books 950 patients, of whom 131 were absent on trial leave, and 9 were boarded out. During the year there were received 282 patients, of whom 14 males and 18 females were re-admissions. There were discharged—43 males, 40 females, recovered; 15 males, 17 females, relieved; 4 males, 5 females, not improved; or a total of 124 (62 of each sex). Ninety patients (48 males and 42 females) died, of whom 3 males and 2 females were on trial leave. As in past years, the undue proportion of hopeless and incurable admissions was remarkable, senile cases alone comprising over 10 per cent. Mental anxiety, bodily illness, and alcohol were the next most prolific causes of mental breakdown. Of the deaths, a very large number were the result of senile decay, and four were due to typhoid fever. Phthisis was accountable for 9 deaths. Two deaths were attributable to colitis. The Medical Superintendent again urges the desirability of the speedy erection of detached hospitals and convalescent wards, at the same time not advocating unnecessarily extensive or elaborate buildings; but he insists that, whilst Kew does exist, such additions are essential, and their need has been forcibly shown during the recent typhoid epidemic.

ASYLUM FOR IDIOTS, Kew.—On December 31st, 1907, there were on the Idiot Asylum books 171 males and 145 females. The admissions were 18 males and 11 females; 6 males and 1 female were discharged, and 1 male released on bond; 18 males and 12 females died. Of the admissions, few, if any, were of a type from which any good result might be expected, as regards either cure or training, most of them being low-grade congenital idiots and epileptics, and many in addition were of inferior physique and in failing health. There was a remarkable absence of such children as have been received in former years, i.e., high-grade imbeciles and cases of retarded mental development, or even merely backward and neglected children, who from the first gave some possibility of a degree of training and even education, that to some extent would equip them for a more or less useful career outside—anticipations in the past, in many instances, been actually realised that have in the past, in many instances, been actually realised. The general health of the institution has been on the whole fairly satisfactory. There was protracted epidemic of enteric fever during the year 1907. Of the deaths during the year, the greater number were the result of pulmonary tuberculosis and pneumonia. Considerable advance has been made in the nursing and individual attention given to the little inmates. With a view to possible future epidemics, the erection of such suitable isolation facilities as would enable any supposed infected ward to be vacated pending necessary sanitary operations and repairs is recommended.

ARARAT.—On December 31st, 1907, there were resident in the hospital 670 patients, whilst there were on trial leave 9 males and 13 females, who, together with 6 male and 10 female boarded-out patients, made a total of 708 patients on the register of the institution. During the year 1907 there were 122 receptions, of whom 27 male and 2 female patients were transferred from other asylums, and 5 males and 5 females were re-admissions. Of these 29 transferred cases, all, with one exception, were of an incurable type. With reference to the causation of insanity amongst those received intemperance in drink was assigned as a cause

in 15 cases (12 male and 3 female), likewise 15 cases were said to be due to a previous attack of insanity, while hereditary influences were accredited as the causative factor in only 9 cases. Among those received, 23 suffered from more or less recent attacks of mania; 10 from melancholia (recent and recurrent); 16 from delusional insanity; 32 from various types of dementia, and 4 male patients were received suffering from general paralysis of the insane. During the year, 33 patients (12 male and 21 female) were allowed out on probation, and, of these 7 were discharged recovered during the year. The percentage of recoveries on admissions for the year was 26.88. During the year 34 male and 12 female patients died—6.99 per cent. of those resident; and of this total, 46, half of the patients were over 60 years of age at death. The chief causes of death were: Pneumonia, phthisis, heart disease, general paralysis of the insane; 2 male patients died of cancer. The general health of the asylum population has been good throughout the year, and, with the exception of a mild outbreak of influenza on the female side, no epidemic disease prevailed. I cannot conclude my report without emphasising the strong and merited condemnation of the practice that prevails here of using a cold and cheerless gaol as the residence of 50 unfortunate and much to be pitied patients, and its continuance is a matter on which I feel so keenly that I dare not say officially what I think of it. To use a gaol for the mentally ill is an indefensible and inhuman anachronism; and I trust that before long this blot on the Victorian Lunacy Department will be removed.

BEECHWORTH.—There were in the hospital on January 1st, 1907, 646 patients; 6 males and 4 females were on trial leave; and 4 males and 1 female were boarded out. This makes 661 cases on the books. On December 31st there were remaining in the hospital, 638; on trial leave, 4 males and 1 female; boarded out, 4 males and 0 females; total 647. This is a decrease of 14 during the year. Thirty-six patients (females) were received. Of these, 11 females were transferred from Yarra Bend and Kew Hospitals; the other 25 (males 16, females 9) were received direct from friends or through the police, and of these 3 males and 3 females were re-admissions. Of those received direct, many were senile, and, from the recovery point of view, obviously hopeless. Seventeen patients were discharged recovered. This is equal to 68 per cent. on the numbers received. This high recovery rate is in contrast with that for the previous year, but it is explained by the fact that some 1906 trial leave cases were discharged in, and therefore accredited to, 1907. Twenty-nine patients died during the year, being the lowest number recorded since 1890. This gives 4.48 per cent. on the average number resident. This low rate is highly satisfactory, especially when considering the number of senile patients in this hospital, as evidenced by the mean age of those dying being 63 years. Influenza affected a large number of the patients and staff, but it was a comparatively mild outbreak, and there were but a few deaths as a result of complications supervening, and these in old and feeble patients with little or no power of resistance.

SUNBURY.—On December 31st, 1907, the patients in the hospital numbered 778. The numbers on trial leave were 5 males and 10 females. Those boarded out were 2 males. The receptions numbered 41 males and 33 females, of whom 2 males and 2 females were re-admissions, and the recoveries 15 males and 17 females. Of the other discharges, 2 males and 3 females were relieved, and 1 male and 1 female (the latter on bond) not improved. The transfers to the hospital were 37 males and 35 females. The deaths numbered 16 males

and 13 females, a total of 29. These numbers show a very low percentage on the average numbers resident. This total does not include 1 male and 1 female, who died whilst on trial leave. Among the deaths, 3 males occurred from general paralysis of the insane, and 5 males and 2 females from phthisis. In connection with this, I consider the erection of proper tents for phthisical patients would be very desirable, as there are very many cases of phthisis in the institution.

BALLARAT.—There were at the end of the year in the Hospital for Insane a total of 593 patients. There were also 2 males and 6 females out on probation, and 1 female boarded out; the total number on the books of the institution being 602. During the year, 85 patients were admitted. Of the females, 28 were epileptics. The increase of female patients was possibly owing to the opening of the hospital and infirmary wards. During the year 19 males and 11 females died, the deaths in all cases being from natural causes. This asylum being chiefly one for chronic cases, but few patients were discharged. Two females, however, were sent out recovered, one of them being a case of recurrent mania, and the other mania with epilepsy. The latter case was discharged after being on trial for some time. One female patient also was discharged relieved and another was discharged not improved. On the whole, the general health of the institution was good, although there were a few cases of influenza amongst the patients and staff. One case of typhoid fever occurred.

RECEIVING HOUSE, ROYAL PARK.—This most important advance in the treatment of the insane made during the year 1907 has been the opening of this institution, which has been specially designed for the observation of special cases; but as the duration for which patients can be detained therein is as long as two months, it has been found possible to treat many cases of incipient and transient mental disorder therein. From September 26th to the end of the year 86 cases were admitted. Of these, it was found necessary sooner or later to transfer 33 to the hospitals for the insane; a similar number—33—were returned home recovered; 2 were discharged as relieved, and 1 not improved. At the end of the year there were 17 patients remaining in the institution. Almost all forms of mental disorder were admitted. Many of them were cases hardly suitable for such an institution, their insanity being apparent and the possibility of recovering practically nil. The superintendship of this institution is in the hands of Dr. C. G. Godfrey, previously Medical Superintendent at Ararat and Assistant Government Medical Officer.

LICENSED HOUSES.—At the beginning of 1907 there were on the books of the licensed houses a total of 79. During the year 32 males and 58 females were received. Twenty-one males and 34 females were discharged; and 5 males and 4 females died. Of those discharged, 10 males and 21 females were discharged as recovered, making a percentage recovery rate of 34.4 on the admissions; but as many of the cases admitted were of long standing and transfers from the hospitals for the insane, the work, so far as the recovery of patients is concerned, was much better than the figures indicate.

The conduct of these licensed houses has been all that could be desired. It is quite unnecessary to individualise, as without question the patients detained therein have received all the care and attention necessary for their well being. The licensed houses undoubtedly serve a useful purpose, but probably they could be made more useful still by the admission of patients on the voluntary boarder system. Such

boarders would be sufficiently well catered for in these houses, and it would assist to bring early cases of mental disorder under official inspection.

Report of Pathologist.—(a) Laboratory work:—During the last year I carried out some experimental work in connection with general paralysis of the insane. Lumbar puncture of 20 general paralytics was made with a view primarily of obtaining some growth from culture of the spinal fluid, secondarily for the detection of choline, and for cytological examination. In all cases but one, and on all media, the plates were sterile, the one exception being patently due to contamination. As regards choline, the results were in all cases negative. The fluid was drawn from patients in a quiescent stage, that is to say, at some distance from epileptiform seizures, and the absence of choline under these circumstances might not be unexpected. Cytological examination.—So far one could only say that there was a decided preponderance of lymphocytes in the fluid. Since this examination, an elaborate attempt has been made by Cotton and Ayer to reduce the examination of the cellular elements of the cerebro-spinal fluid to a finer art. They differentiate from the normal lymphocyte, plasma cells undistinguishable from lymphocytes by ordinary staining methods. Plasma cells, they maintain, are almost pathognomic of general paralysis if attended by an adequate lymphocytosis. As regards the post-mortem pathology of general paralytics, I have completed a series of micro-photographs from brain sections of Kew Asylum cases showing the grosser lesions usually found associated with general paralysis. These formed the subject of a lantern demonstration to the fifth-year students of the University on the completion of their clinical instruction in insanity. (b) Research work on the typhoid epidemic: Some interesting work was carried out in connection with the persistent presence of typhoid fever in the Kew Asylum. There was no widespread epidemic at any time, but numerous cases sprang up at curious intervals, and baffled all attempts to locate the *focus et origo* of the evil. The type of typhoid was very virulent, and several trained nurses engaged especially to attend to the typhoid patients were attacked. The cases were spread over the main asylum and the Idiot Asylum buildings, quite self-contained and widely apart with respect to patients, attendants, and medical officers. In the Idiot Asylum, although cases arose in which no manner of explanation of the mode of infection could be given, it was significant that, of the first eight cases of typhoid seven were employed in the laundry. During all this time, any case of rise of temperature with malaise was looked upon with suspicion, and the blood examined for the Widal reaction. Any death accompanied by a rise of temperature and bowel disturbance was looked upon with suspicion, and a post-mortem made with a view always to a probable typhoid. One of the most interesting cases met post-mortem was that of a woman, aged 60. She had died from exhaustion, subsequent upon an incarcerated and inflamed hernia. On opening the loop of the small bowel that was in the sac, suspicious ulcers were seen. Besides, the spleen was large and soft. Cultures were made from the spleen, and a pure culture of the typhoid organism isolated. How long she had carried virulent typhoid organisms about with her will never be known. Following the lead of the home investigators, the task of hunting for a "typhoid carrier" was begun, Dr. Hollow, Senior Medical Officer at Kew, undertaking most of the actual work. First of all, a fresh Widal blood examination was made of all the ex-typhoid fever patients who had

convalesced and had been re-admitted to normal living conditions, under the assumption that they were clean. In every case the reaction was positive. Then a specimen of each patient's stool was taken under careful conditions, and "grown" on various media. Colonies were isolated and put through the well-known tests for the typhoid organism. The method adopted followed closely the procedure of the Drs. Ledingham, in England. Already, it is found that the stools of one patient, at least, contain typhoid bacilli, although it is nine months since she had the actual fever. The investigation is still going on, and others may be found. In the meantime, the ex-typhoid patient is isolated, and means are being taken to cleanse her alimentary tract, and subsequent cultures will be made to test the efficiency of the disinfection. In connection with the typhoid, it is interesting to note that in every case, except one that died without any suspicion of typhoid and was subsequently discovered to be so post-mortem, and one that died so suddenly that no Widal reaction could be made, the Widal positive reaction was obtained; though it was delayed in one or two cases; and in no case was a positive Widal reaction given that turned out to be anything but typhoid fever.

Government Pathologist.—The appointment of a pathologist to the metropolitan hospitals for the insane at a salary of £300 per annum is not filling the object for which the appointment was originally intended. It cannot, for it is impossible to expect a competent and clever pathologist to give up all his time for such a small stipend. What is wanted is a skilled pathologist, to give his whole time to the work required of him, and he should be paid a salary equal to that of the medical superintendents of the hospitals for the insane. Only then will results be arrived at worth paying for. Undoubtedly marked improvement has taken place in the performance of the post-mortem examinations, and, as evidenced in the above pathological report, a great deal of useful work has been done by Dr. Mackeddie, and there is undoubted evidence of the awakening of interest in clinico-pathological work amongst the staff. With the opening of the Mental Hospital a good laboratory must be provided, and a skilled pathologist as well, or else one of the most important objects for which this hospital is being established will not have been attained.

In General.—In the hospitals for the insane certain wards were opened and put into use; two hospital wards for 42 patients each at Sunbury; two wards at Ballarat, each for 42 patients of the hospital and infirm class; and two temporary hospital wards at Yarra Bend, to accommodate 48 patients each. Besides these, other works were gone on with, such as the receiving ward at the Bendigo Gold District Hospital; the erection of the medical superintendent's house at Beechworth, which allows the old residence to be adapted for the use of patients and staff. At Sunbury, too, the new kitchen and stores are almost completed, and in the old portion of that asylum day rooms are being constructed, which will mean the wiping out of the existing overcrowding, and giving additional accommodation for about 100 patients. Amongst other important works might be mentioned the improved water supplies at Ararat and Ballarat, and the commencement of a water-borne sewage system for the latter asylum. Another very important matter which is slowly proceeding towards completion is the Mental Hospital at Royal Park. This, it is estimated, will give accommodation for 120 cases of the recent and recoverable class. Considerable improvement has been

made in the diet of the patients. The addition of a small amount of money has enabled us to very materially improve the dietary of the attendants and nurses. At Kew, a trial has been made of tent life for certain classes of patients as well as those cases which are infectious; and at present the results are so encouraging that it is proposed to extend this mode of treatment. The increased annual rate of admissions continue to make demands for additional accommodation, whilst the recovery rate and the number of deaths continue to be very low, so that the population of the hospitals for the insane is steadily increasing; last year's annual increment was 70 patients.

On the training of attendants and nurses.—The rules and regulations provide for a system of preliminary selection by an educational examination of simple but sufficient character, and during the year examinations were held, at which 204 male candidates presented themselves, and 95 passed. More numerous examinations were necessary for the female candidates, as there were a greater number of vacancies to be filled; 375 candidates appeared, 221 passed, and 154 failed; so that out of a total of 579 candidates 316 passed and 263 failed. The second stage in the training of our nurses and attendants is terminated by an examination in elementary anatomy and physiology, first aid to the injured, and general duties. This may be taken at the end of the first year, and must be taken before the end of the second year. For this examination 43 attendants presented themselves and 23 passed; whilst 65 nurses were examined and 29 satisfied the examiners; making a total of 52 passes out of 108 candidates. In the next place, those attendants and nurses who had been in the service for at least three years, and who had passed the first nursing examination, were, after a further course of lectures, allowed to present themselves for the senior nursing examination in general and mental nursing; 87 attendants and 30 nurses went up for the examination, and of these, 49 attendants and 13 nurses were successful. The examinations were conducted by the Inspector-General of the Insane, with two medical superintendents (Drs. Barker and Mullen) acting as a Board of Examiners. The standard set was practically that of the Medico-Psychological Association of Great Britain and Ireland, except that the examinations were in two parts as against one whole examination as in England. The examinations themselves were made as practical as possible, for, besides the written paper, a *visa voce* examination was given, as well as one in practical work, bandaging, dressings, and other everyday nursing operations. Besides the former examinations, another in mental nursing has been instituted for those officials qualifying for senior positions, such as chief nurse or hospital nurse. It is now necessary for those hospital-trained nurses who are employed in the department to pass this higher grade examination before their permanent appointment can be secured. Certificates are given to those attendants and nurses who have passed both the junior and senior nursing examinations, and a medal is awarded annually to the candidate passing with most credit the senior examination, but this is given only when a reasonably high standard is reached.

Mental Hospital and Lunacy Reform.—The new Mental Hospital is a building of the one-storeyed pavilion type, with official and administrative blocks; the former containing offices, surgery, waiting and consulting rooms, as well as quarters for the medical officer and matron, the latter consisting of a kitchen, store, laundry, and recreation room. Each centre block on either side is practically a double ward. One portion

will be for convalescent and working cases, and the other for recent admissions. The second block on either side is expressly designed for the observation and treatment of acute cases, especially those who are suicidal and who otherwise require constant observation. Each ward will contain a large number of single rooms, nearly one-fourth of the total accommodation for 120 patients being of this character, whilst lavatories and sanitary spurs will be provided, as well as examination rooms, storerooms, and rooms for the attendants and nurses, who will also have separate recreation and dining rooms. The hospital is quite close to the receiving house, and will be under the same direction, a conveniently situated house having been already secured for the medical superintendent. Furthermore, the proximity to the University and the Medical School will, it is hoped, prove of immense benefit, especially as it is proposed to erect and equip a clinical and pathological laboratory, wherein all the latest methods of clinical research and medical treatment may be investigated and post graduate courses instituted. Many minor details in the existing Lunacy Act require amendment. Among them are:—1. A clause permitting the transfer without further certification of patients from the hospitals for the insane to private licensed houses, and from the latter to the former. 2. The substitution of the term "person of unsound mind" for the expressions at present used, "deemed insane" or "lunatic." 3. The reconstruction of the clauses dealing with the disabilities under which medical practitioners labour with regard to certification and the ownership of a licence to keep a private asylum. 4. An alteration in the method of committing children of the Neglected Children's Department. At present they are classed as the criminal insane. 5. An alteration of the clause which deals with the question of transference from the receiving house to a hospital for the insane. At present, when two medical practitioners have certified before a magistrate that the patient is apparently insane and a fit subject for treatment in a receiving house, before that patient can be sent on to a hospital for the insane it is apparently necessary for two medical men to further examine the said patient and certify before a magistrate that the patient is of unsound mind, and should be treated in a hospital for the insane. There seems no very good reason why such evidence should not be given by the medical officer in charge of the receiving house, and the adoption of this simple alteration would involve a considerable saving in the expenditure on fees. 6. The adoption of the voluntary boarder clause as previously recommended.

Cost of Maintenance.—The total expenditure for the year 1907 was £141,543 5s 5d, as against £136,228 1s 1d for the preceding year, an increase of £5,315 4s 4d. A large proportion of the increased expenditure was on the salary votes, and is accounted for partly by the opening of the receiving house and the change in the staffing of the department by the substitution of a permanent staff for temporary employees. The average weekly cost for maintenance was 11s 3½d, and, deducting the amounts received for maintenance, sales, etc. (average 1s 6¾d per week), the amount is reduced to 9s 8¾d, a slight reduction as compared with 1906, when the net average weekly cost was 9s 10½d.

The subscriptions to the Launceston Children's Hospital fund now amount to £1253 3s 7d.

HOSPITAL INTELLIGENCE.

Brisbane Hospital.—At the meeting of the committee of the Brisbane Hospital, held last month, the financial statement showed the maintenance account to be £620 13s 2d in debit. The medical report for the three weeks ended on November 14th, showed that the in-patients admitted numbered 216, while 58 were discharged, cured or convalescent, 134 relieved or improved and 13 in *statu quo*, deaths 17, remaining under treatment 220. Out-patients attendances at the hospital, 1603; and at South Brisbane Branch Dispensary, 161. At the Convalescent Home, Sandgate, there were 15 patients. The Dutton Park feté resulted in a nett profit of £215, to be divided equally between the Hospital and the Hospital for Sick Children. The Brisbane Dingey Sailing Club had donated the proceeds of their flagship at the inter-State trials, amounting to about £7 or £8.

Launceston Hospital.—At a meeting of the Board of Management of the General Hospital, held last month, the finance committee reported that the fees for October amounted to £227 10s, and the receipts, from all sources, to £812 10s 1d, being £73 3s 9d less than the outgoings. During the same period 122 patients were admitted—40 from the city, and 82 from the country. The committee acknowledged receipt of Mrs. Nicholl's donation of £25 to the Samaritan fund. Dr. Pardey forwarded his resignation as a member of the Board, but stated that he would seek re-appointment if no other applicant came forward. The resignation was accepted. The report of the visiting committee contained the following reference to the registration of nurses:—"The question of facilitating the registration, on the mainland, of the nurses of our training-school will receive consideration. Under agreement, the rules and regulations provide for the examination of trainees by the hospital examiners, all written examinations being completed by the end of the third year, and only a practical examination being required at the end of the fourth year. With the instruction in invalid cookery, as proposed during the coming summer, and annually after that, we shall conform to the requirements of the nursing associations on the mainland, so that nurses will be eligible to present themselves for the final examinations of these associations. Until they have received instruction in invalid cookery, they are not qualified to do so. Under such circumstances it would be well, for the present, to allow nurses to present themselves for our final examination at the end of their third year, as under agreement; and, subsequently, during their fourth year, should they so desire, and should the nursing associations on the mainland be agreeable, they may submit themselves to the examination of the associations, in order that their registration on the mainland may be facilitated."

Toowoomba Hospital, Queensland.—At the monthly meeting of the hospital committee, held last month, the medical report showed that during October 84 patients were admitted, 77 discharged, 3 died, and 63 remained. Accounts amounting to £321 15s 10d were passed for payment, leaving a credit balance of £654 10s 4d. It was decided that the committee meet the members of the Council on the first Saturday afternoon convenient to them, regarding the matter of drainage from the hospital. The matter of the establishment of an infectious diseases hospital was discussed, and a sub-committee was appointed to report to a later meeting.

Dr. K. Hammond resigned his position as resident surgeon. The resignation was accepted, and it was decided to place on record the committee's appreciation of Dr. Hammond's services.

Green Vale Sanatorium, Victoria.—The annual report of the Green Vale Sanatorium for Consumptives, which is under the direction of the chairman of the Board of Health, shows that the admissions for the year totalled 546 persons, of whom 262 were males, and 284 females. Those discharged with the entry against their names, "Disease arrested, or condition much improved," numbered 337. The incurable are set down at 77. Those discharged at their own request or on other grounds were 97 in number, and there were 3 deaths. The average stay of patients in the sanatorium was 74 days. Of the patients discharged, 199 were afterwards heard of, and of these, 104 were in good health or working; 9 were in *statu quo*; 35 in failing health; and 51 deceased. The primary purpose of the institution is, by means of generous and selected food, open air life and other forms of recuperative treatment, to develop the resistance of the body to the disease; to arrest the progress of the disease, and to restore the patient to his normal condition.

New Town Charitable Institution, Hobart.—The annual report for 1907-8 states that the number of inmates on the books during the year was: Males, 209; females, 180; total 587. The average daily number during the year was 291.52, an increase of 5.49 as compared with the year 1906-7. The number admitted during the year was 289, being 30 more than in 1906-7. The number discharged during the year was 202, as against 209 in 1906-7. The deaths during the year numbered 76, or 12.60 per cent., as against 67, or 11.67 per cent. in 1906-7. The average age of those who died was 72.84; the maximum age being 95 years, and the minimum, 36 years; 28 were over 80 years of age at the time of their death, and the average age of the oldest 12 was 89.33 years. The causes of deaths were: Cancer, 4; diarrhoea, 1; gastritis, 1; hæmorrhage, cerebral, 2; nephritis, 1; pleurisy, 1; phthisis, 4; paralysis, 2; senilis, 59; valvular disease, 1. Number of lying-in inmates on 1st July, 1907: Already confined, 2; admitted during the year, single, 8; married, 1. Number left during the year, 7; number remaining 30th June, 1908, already confined, 2; awaiting confinement, 2. Number of confinements: Single, 6; married, 1. **Expenditure.**—The gross expenditure for the year was £4252 19s 11d. The receipts were £384 11s 3d, as against £350 1s 5d in 1906-7. The net expenditure was £3868 8s 8d. The cost per head on gross expenditure was £14 12s 3d, and on net expenditure, £13 5s 10d, or 7s 7d and 13s 5d less respectively than in 1906-7. The claim made against the Imperial Government for maintenance of paupers in the New Town Charitable Institution chargeable to Imperial funds, was £60 1s 8d.

MEDICAL NOTES.

Charitable Donations and Bequests.—The following special donations were made at the recent annual meeting of St. Vincent's Hospital, Melbourne:—The Earl of Dudley and Lady Dudley, £25; Sir Thomas and Lady Carmichael, £10; Dr. Douglas Shields and Mrs. Shields, £105; Mr. John Wren, £100; Mrs. P. Brennan, of South Gippsland, £500; Mr. and Mrs. Noonan, West Melbourne, £100; Mrs. Mary Murray, West Melbourne, £100; Dr. A. L. Kenny, £100; and

Miss Flannery-Rowlands, £100. The Melbourne Hospital has benefited to the extent of £25 by the late show held by the Australian Ladies' Kennel Club, at the Exhibition Building.

Mr. Thomas Cook, of Turanville, Scone, N.S.W., who recently furnished at his own cost the female ward at the local hospital, has now given instructions for the men's ward to be furnished in the same manner. Dr. Scott, the local medical officer, has recently installed in the hospital operating theatre at his own cost an X-ray apparatus, and is also furnishing a ward in the hospital.

Royal Society of New South Wales.—At a meeting of the Royal Society last month Mr. D. Carment read a paper by the Commonwealth Statistician (Mr. G. H. Knibbs) on "The Influence of Infantile Mortality on Birthrate." The paper proved that—(a) when either all mothers of deceased infants, or any constant proportion thereof, may be regarded as subject to equal risk of fecundity, then equal increases in the rate of infantile mortality tend to be followed by equal though relatively small increases in the birthrate; (b) and the influence of infantile mortality on the birthrate must always be very small. Accurate statistics showed that uniform increments to the rate of infantile mortality tended to produce uniform increments in the birthrate. No general law existed for the world as a whole. Mr. J. H. Maiden (director of the Botanic Gardens) showed two interesting poison plants, *Rhus radicans*, of "poison joy," often confused with the perfectly harmless *Virginia creeper* (*Ampelopsis veitchii*). Its poisonous property is an essential oil. The other was the beautiful *Primula obconica*, with a photograph illustrating the serious skin irritation it induced in some who handled it. The cause of this was the glandular hairs. There were three species of stinging tree in Australia. Dr. Spencer remarked that *Rhus* produced the well-known Chinese lacquer juice used in varnishing, which gave rise to a skin irritation. The remedies, Mr. Maiden said, were sugar of lead and permanganate of potash, while, immediately used, ordinary washing soda gave relief. The plant had no odour, was not equally active at all times of the year, most accidents occurring from August to February, the period of fullest growth. The volatile oil, he thought, was given off largely on a hot day, and attacked the mucous membrane first. The whole thing was an argument for medical men, especially those specialising on skin diseases, studying botany. Dr. Spencer showed two medical instruments of precision for measuring the pulse and the blood pressure.

The Newcastle Hospital Saturday Collection was taken up on October 10th, and amounted to £338 12s 1d.

St. John Ambulance Association.—At the annual business meeting of the St. John Ambulance Association held in Sydney on September 17th, the report referred to the regulations issued by the Board of Trade in England, and adopted by the Department of Navigation in New South Wales, which made it compulsory for masters and mates to hold a first aid certificate. This had produced a feature of ambulance training unique in the history of the association. During the year 64 classes had been formed, in connection with which 1005 persons attended the full course. Of those examined, 734 gained certificates and re-examination vouchers, 40 home nursing certificates, and 42 medallions. A grand total of 13,451 of both sexes had been instructed since the establishment of the

centre. A valuable auxiliary was the Mission to Seamen, and since April 1st, on which the new Board of Trade regulations came into force, over 40 candidates had passed the first aid examination. Reports were furnished by the Sydney Harbour Trust, Albury, Watson's Bay, Kronheimer Ltd., Drummoyne, Glebe, Milson's Point line, Hobart, Balmain, Alexandria, Western Suburbs, Queensland Technical College, Wallsend, Kambala Ladies' College, Coraki, and Gladsville. Instruction had also been given to the Sydney Training College and the N.S.S. Sobraon, and various district teachers' associations had been active in promoting new classes. The result of the appeal made last winter to schools of arts had been satisfactory. The St. John Ambulance Brigade had made good progress; during the fleet visit over 100 members gave their services at various ambulance stations. Thanks were accorded to members of the medical profession for their assistance. The financial statement showed receipts totalling £394 12s 6d, to which donations contributed £24 7s, and class fee £177 13s 3d, the expenditure leaving a cash balance of £8 2s 11d.

The members of the Medical Association of Victoria, to the number of 75, recently visited Clifton Springs, where they were the guests of Mr. T. B. Nunan, of the Clifton Springs Spa. Dr. C. L. McCarthy (Footscray) explained that some of the Association members thought that the completeness of the establishment and the variety of waters should be more widely known amongst the medical profession; hence the large attendance on the occasion. The waters, he stated, compared favourably with any he had knowledge of in Europe and America. During the afternoon the company made a thorough inspection of the bath-houses and the mineral springs. The party included Dr. Moss (president), Dr. G. A. Syme, Dr. Barrett, Dr. McGillicuddy, the secretary (Dr. Stephens), and other prominent members of the Association.

The First Creche in Victoria.—Twenty-one years ago the first creche in Victoria was opened in Collingwood. It owed its existence to the Rev. Chas. Strong, Mrs. Strong, and a few other women, who recognised how greatly handicapped it was possible for a working woman to be with her babies. During the 21 years of its existence the creche has practically saved scores of lives, while it has given hundreds of children a chance of growing up into healthy young people. The numbers of children at the creche prompted the committee to bestir itself to provide a kindergarten room, and that room was opened recently by Lady Carmichael. The room is a fine one, and represents the whole of a small brick cottage next the creche. The inside walls have been removed, and, well lighted and ventilated it will doubtless prove a boon. The kindergarten class brought the formal part of the proceedings to a close by singing an action song with much vigor. An adjournment was then made for tea, which was served in the committee room and the day nursery. A speech of welcome to Lady Carmichael was made by the Mayor of Collingwood.

Government Grants to Victorian Hospitals.—Some time ago the State Government decided to increase the grant to the Children's Hospital to make up for the loss of revenue caused by the removal of the hospital collection boxes from the State schools. The Premier, Sir Thomas Bent, has agreed to increase the grant this year to £2000. The grant last year was £500. He has also promised that the Victorian Government would give £2500 to St. Vincent's Hos-

pital if an equal sum were raised by the hospital committee, or by anyone acting on its behalf.

Rat-proof Wharves.—A communication has been received by the council of the Sydney Chamber of Commerce from the Board of Health, drawing special attention to certain clauses in their report for the year 1907, wherein it was advocated that the concrete facing of the Darling Harbour frontages should be proceeded with as rapidly as possible, with a view of preventing access to the wharves by rats from vessels lying alongside. Attention was further drawn to the necessity which at times exists for the complete fumigation of inter-State steamships for the purpose of ridding the vessels of plague rats. It was resolved by the council to support the views of the Board of Health, and it was noted with satisfaction that a considerable time had elapsed since any plague rats had been discovered.

PERSONAL ITEMS.

Dr. Gordon Craig has resumed practice at "Craig-nish," Macquarie-street, Sydney.

Drs. R. H. Walton and A. C. McMaster, from Auckland, N.Z., have succeeded in obtaining their F.R.C.S. of Edinburgh.

Dr. T. Hope Lewis has returned to Auckland, N.Z., after a trip abroad.

Dr. Jamieson, late of Collingwood, N.Z., has purchased Dr. Bartlett's practice at Eketahuna, N.Z.

Dr. Bartlett has removed to Sydney, where he intends practising his profession.

Dr. Samuel T. Knaggs has returned to Sydney after an extensive trip through Egypt and the Continent of Europe.

In the recent Army Medical Corps examinations Captain Carty Salmon, M.H.R., topped the list of passes for the rank of major, securing 90 marks "special mention" and distinctions in field hospital and other work.

Helen Mary Mayo, M.B., B.S., has been licensed to practise anatomy in the School of Anatomy at the University of Adelaide.

The Hon. Dr. Collins, M.L.C., has left New Zealand for England on a holiday trip.

Dr. Hope Lewis, of Auckland, N.Z., who recently returned from a trip through Europe, is about to take up his residence in Wellington, N.Z.

Dr. R. Fleming Jones, Government Medical Officer, Samarai, Papua, who, with his wife, has been on a tour around the world via Japan, Siberia, and America, returned to New Guinea recently after an absence of seven months, during which time many of the leading hospitals of Europe, America and the East were visited.

Captain J. Booth-Clarkson, Natal Medical Corps, Government Medical Officer, Ayr, has received the medal for service in the Natal Native Rebellion of 1906. Previous to this he had served in the Spanish-American and Boer Wars. He has been seconded from the Natal Medical Corps while holding the appointment of Government Medical Officer, Ayr.

Dr. E. Matthews Owens, who has had to leave Hobart, Tasmania, on account of his health, was entertained at a banquet by the members of the Medical Section of the Royal Society of Hobart on November 18th. Dr. Sprott, the President of the Society, who was in the chair, spoke in eulogistic terms of Dr. Owens' honourable conduct during the five years he had practised in Hobart, and hoped that his health would be restored

so that he would be able to come back amongst them once more.

Dr. Eugen Neumann has disposed of his practice at Wilcannia, N.S.W., to Dr. Stuttford.

Dr. James Jamieson, Health Officer for the City of Melbourne, met with a painful accident on November 27th. He was engaged officially inspecting the premises of the Sanitarium Food Café, situated in the basement below the New Zealand Government Agency, 289 Collins-street. While examining a large electric ventilating shaft fan his hand got drawn in, and coming into contact with the revolving blades, was severely mutilated. He was taken to Dr. F. Bird's private hospital, in Spring-street, where it was found necessary to amputate one of the fingers.

Dr. Rupert Magarey has returned to Adelaide after an absence of over 18 months spent in Europe. He was on the resident staff of Great Ormond Street Children's Hospital, London, for eight months. Subsequently he attended the London, Chelsea Women's, and other hospitals in England, and also spent some weeks at hospitals in Vienna.

Dr. D. Turner has resumed practice at 125 Collins-street, Melbourne.

Dr. F. W. W. Morton has resumed practice at 156 Collins-street, Melbourne, and 39 Brunswick-street, Fitzroy, Vic.

Dr. Ol. M. Abramowski, late of Mildura, has commenced practice at Harvard House, 11 Collins-street, Melbourne.

Dr. Sproule tendered his resignation as medical officer of the Tenterfield district, N.S.W., having disposed of his practice to Dr. Flashman.

Dr. J. D. Buchanan, after studying in London for some time, is returning to Brisbane by the Waipara, as surgeon.

Dr. H. S. Marsh has resigned the position of medical superintendent of Sydney Hospital.

Dr. L. O. S. Poidevin, the Australian cricketer and lawn tennis player, who made England his home during the last seven years, returned to Australia by the s.s. Suevic recently. It is four years since Dr. Poidevin was in New South Wales, and during his absence he has taken his medical degrees at Edinburgh, and intends later on to specialise in some branch of medical and surgical science.

Dr. J. J. Stuart McEvoy, who has left Beenleigh, Queensland, for a holiday, was entertained and tendered a suitable present recently by the members of the local cricket and sports clubs.

Dr. R. T. Paton, Medical Inspector of Charities, N.S.W., has been appointed to the Commission of the Peace.

Dr. J. P. Hocken, who has filled the position of instructor of the West Wallsend, N.S.W., Ambulance Class, was recently presented by the members with a silver-mounted inkstand as a mark of their appreciation and esteem.

Dr. Charles Ryan has resumed his duties as Consul-General for Turkey in Melbourne. Dr. Ryan is the Principal Medical Officer of the Victorian Military Forces.

Dr. H. W. Palmer, formerly of the Coast Hospital, Little Bay, Sydney, has removed to Ryde, near Sydney.

Dr. H. C. R. Bell has left Coolah, N.S.W., and gone to Armidale, N.S.W.

Dr. A. N. Rabagliati has bought the practice of Dr. MacDonald, Coff's Harbour, N.S.W.

Dr. T. M. Kendall, of Latrobe, who has been on a visit to England, has returned to Davenport, Tasmania.

Dr. Arthur Haines, who has had charge of Dr. Caw's

practice at Narracoorte, S.A., has arranged to settle at Willunga, S.A., as successor to Dr. John Evans.

Dr. Gertrude Campbell, until recently assistant house-surgeon at the Launceston General Hospital, Tasmania, has left for Victoria in order to commence private practice.

Dr. G. L. Murray, of Bowen, Queensland, was accorded a send-off by a number of citizens on the eve of his departure for Rockhampton, Queensland, last month. He was presented with a travelling bag from the public, and Dr. and Mrs. Murray were at the same time presented with a piece of silver plate from the members of the Amateur Dramatic Club, of which body both had been active members.

Dr. Darby, the Resident Medical Officer of the Geelong Hospital, Victoria, has resigned his position, and severed his connection with the institution on December 10th.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Kenny, Hamilton, M.B.C.S. (Eng.), to be Medical Officer at the deviation works, Zig-Zag.

The following appointments have been made to the Sydney Hospital:—Resident Skiagrapher, Dr. J. G. Edwards; Second Senior Resident Medical Officer, Dr. H. J. Ritchie; Resident Medical Skiagrapher, Dr. B. J. Furber; Resident Pathologist, Dr. A. E. Colvin.

SOUTH AUSTRALIA.

Newland, Henry Simpson, F.R.C.S. (Eng.), to be Honorary Assistant Surgeon at the Adelaide Hospital.

Todd, Charles Edward, M.D., M.R.C.S., to be an Honorary Surgeon at the Adelaide Hospital.

Sandison, Alexander, M.B., Ch.B., of Streaky Bay, to be a Public Vaccinator.

QUEENSLAND.

Sheehy, Dr. William, to be Medical Officer to Burketown Hospital.

VICTORIA.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz.:

Merrin, Patrick, L.R.C.S., Northern, *vice* H. G. Wadleton, M.B., resigned.

Leon, John Howard, M.B., South-Eastern, *vice* Gerald Walsh, M.B.

Ridley, Sidney Frederick, M.B., North-Western, *vice* Robert Neville Woodside, M.B., deceased.

Breton, Hewlett, M.R.C.S., South-Western, *vice* Arthur G. Owen, M.D., resigned.

Downey, Dr. H. D., to be Medical Officer, Geelong Hospital, *vice* Dr. Darby, resigned.

The following persons to be Officers of Health for the districts set opposite their names respectively, viz.:

Magee, Charles Crozier Tandy, L.R.C.P., Tungamah, *vice* William Amherst Henry Barrett, L.R.C.P., resigned.

Merrin, Patrick, L.R.C.P., Huntly Shire, *vice* Henry Greatley Waddleton, M.B., resigned.

Ridley, Sidney Frederick, M.B., East Loddon Shire, East Riding and Gordon Shire, *vice* Robert Neville Woodside, M.B., deceased.

Fetherstonhaugh, Charles, M.B., Prahran City, acting during the absence on leave of Richard Herbert Joseph Fetherston, M.D.

WEST AUSTRALIA.

Feilchenfeld, Dr. O. A., to be Junior Resident Medical Officer to the Perth Public Hospital, *vice* Dr. William H. Nelson, resigned.

Laver, Dr. C. W., to be District Medical Officer and Public Vaccinator, Wellington Mills.

McWhae, Dr. Douglas Murray, to be Acting District Medical Officer Perth, during the absence on leave of Dr. Seed.

Keenan, Dr. A. J. W., to be Acting District Medical Officer and Acting Public Vaccinator, Roebourne, also Acting Quarantine Officer for the Port of Cossack, during the absence of Dr. J. Maunsell on leave.

Pitcher, Dr. S., to be Officer of Health, Laverton.

Paten, Dr. D. D., to be Officer of Health, Broome.

Joyce, Dr. O., to be Medical Officer of Health, Greenbushes.

McWhae, Dr. D. M., to be Acting Officer of Health, Perth, during the absence of Dr. W. P. Seed.

Walden, Dr. F. J., to be Public Vaccinator, Worsley.

Saw, Athelstan John Henton, to be Honorary Captain Australian Army Medical Corps Reserve.

NEW ZEALAND.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz:—

- Orain, William Bannerman, M.B., M.S., for the district of Rotorua.
 Moore, Stuart Alexander, M.B., B.S., M.D., for the district of Dunedin.
 MacGibbon, Thomas Arthur, to be Captain, New Zealand Medical Corps.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:—

QUEENSLAND.

- Higgins, John, L.R.C.P. and S. (Edin.), 1898; L.F.P.S. (Glas.), 1898.
 Davies, John, L.R.C.P. and S. (Edin.), 1898; L.F.P.S. (Glas.), 1898.
 Benham, Rosamond Agnes, M.B., B.S. (Adel.), 1902.
 Milne, James Shaw, M.B., M.S. (Aberd.), 1885.
 Sheehy, William, M.B., M.S. (Syd.), 1906.
 Buchanan, David Edward Anderson, L.R.C.P. and S. (Edin.) 1908; L.F.P.S. (Glas.), 1908.
 Floyer, Blaise Bernard, M.R.C.S. (Eng.), 1872; L.S.A. (Lond.), 1872.
 Ferris, Frederick Allan, M.B., B.S. (Melb.), 1908.
 Shaw, Harry Charles Costello, M.R.C.S. (Eng.), 1884; L.R.C.P. (Lond.), 1884.
 Pern, Norman, M.R.C.S. (Eng.), 1900; L.R.C.P. (Lond.), 1900
Additional Qualifications.
 L'Estrange, Henry, F.R.C.S. (Irel.), 1908.

VICTORIA.

- Parker, Reginald Arthur, M.B. & M.S. (Syd.), 1907.
 McNab, Alexander Anderson, M.B. & M.S. (Glas.), 1896.

SOUTH AUSTRALIA.

- Brummitt, Elliott Arthur, M.B., B.Ch. (Edin.), 1908.

TASMANIA.

- Parker, Reginald Arthur, M.B., M.S. (Syd.), 1907.

BIRTHS, MARRIAGES AND DEATHS

BIRTHS.

- BULLMORE.—November 27, at 123 Queen-street, Woollahra, Sydney, the wife of A. H. Bullmore, M.B., M.R.C.S.—a daughter.
 COLE.—November 11, at 88 Rathdown-street, Carlton, Victoria, the wife of Frank Hobill Cole, M.D.—a son.
 FLASHMAN.—November 17, at Drylaw, Kent-road, Rose Bay, FOX.—December 8th, at her residence, Waratah, Kiama, N.S.W., the wife of Dr. H. E. Fox—a son.
 SYDNEY, the wife of J. Froude Flashman, M.D.—a son.
 GRIFFITHS.—November 27, 1908, at her residence, Woolgan, HAGEN.—December 8th, at her residence, Victoria-street, Mayfield, Newcastle, N.S.W., the wife of L. K. Hagen, M.D.—a daughter.
 KILLARA, Sydney, the wife of F. Guy Griffiths—a daughter.
 MARSDEN.—October 2, 1908, at her residence, Dowling-street, Dungog, N.S.W., the wife of E. A. Marsden, M.B., Ch.M.—a son.
 MELLAND.—November 27, at Oxford-road, Manchester, England, to Dr. and Mrs. Charles Herbert Melland (née Dorothea Gee)—a son.
 STANLEY.—At her residence Marino-street, Tamworth, N.S.W., the wife of Dr. G. P. Stanley—a son.
 WATSON.—November 16, at Arlington, Edgecliff-road, Sydney, the wife of Dr. Frederick Watson—a daughter.

MARRIAGES.

- CAMPBELL-SWAYNE.—October 17, at St. Paul's, Kogarah, Sydney, Walter Charles, son of Robert Campbell, of Stanmore, to Emily Mary, daughter of late Herbert Wigan Swayne, M.D., M.R.C.S., L.S.A., of Hurstville.
 O'REILLY-CALDWELL.—August 27, at Lisleen, Pymble, N.S.W., by the father of the bride, Theophilus Linnell O'Reilly, M.B., Ch.M., son of Dr. W. W. J. O'Reilly, Sydney, to Emily (Cherry), daughter of the Rev. Richard Caldwell, Pymble.
 PATRICK-GARVIN.—October 26, 1908, at St. John's Cathedral, Hongkong, China, Henry Couper Patrick, M.B., Ch.M., son of Dr. William Patrick, of Glasgow, Scotland, to Ida Annie, daughter of Thomas Garvin, Inspector-General of Police, Sydney.

PERN—HEUPT.—November 23, at "Blair Athol," Rowe-street North Fitzroy, Victoria, by special license, by the Rev. J. H. Marshall, B.A., Dr. Norman Pern, M.R.C.S., L.R.C.P., son of Dr. Alfred Pern, F.R.C.S., of Botly, England, to Adeline O., elder surviving daughter of J. J. William Heupt, and sister of Dr. A. R. Heupt.

THOMAS-DAVIS.—October 2, 1908, at Croydon, London, England, Henry Darby Thomas, M.R.C.S. (Eng.), L.R.C.P. (Lond.), son of E. J. Thomas, late secretary Premier's Department, Melbourne, to Ada Shedden Clifton, daughter of Joseph Davis, consulting engineer to the Government of New South Wales, London.

THOMPSON-SYDNEY-JONES.—October 28, at Strathfield, Sydney, Ralph Mate Thompson, of Mullumbimby, youngest son of the late Henry Thompson, of Camden, and Mrs. Henry Thompson, of Maramba, Burwood, to Maud, second daughter of Sir Philip Sydney-Jones, M.D., of Halsbury, Strathfield.

DEATHS.

BENNETT.—December 4, at Mildura, Victoria, James Bennett, M.B.E.S., son of the late Edward Bennett, Bung Bong, aged 32 years.

SMITH.—November 16, at his residence, Bairnsdale, Victoria, Dr. Johnson Marion Smith, aged 42 years.

WEBB.—December 10th, at Melbourne, John Holden Webb, M.R.C.S., late 24 Collins-street, aged 64 years.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. G. E. Twynnam, London; Mr. W. Rodier, Sydney; Dr. T. G. Wilson, Adelaide; Messrs. Mayer, Meltzer & Jackson, Melbourne; Dr. F. M. Dudley, Manila, Philippine Islands; Dr. B. B. Ham, Brisbane; Dr. W. T. Tilley, Hamilton, Vic.; Dr. E. M. Owens, Hobart; Dr. A. G. Cribb, Millthorpe, N.S.W.; Dr. H. W. Palmer, Hyde, Sydney; Dr. R. R. Stawell, Melbourne; Mr. John Currie, Publisher, Edinburgh, Scotland; Hon. Sec. New South Wales Institution for the Deaf and Dumb and the Blind; Dr. R. Worrall, Sydney; Dr. F. Magarey, Adelaide; Dr. F. Clarkson, Charleville, Queensland; Mr. W. E. Smith, Sydney; Dr. R. Weiss, London; Dr. R. S. Bowker, Sydney; Prof. Welsh, Sydney; Dr. W. McMurray, Sydney; Prof. Allen, Melbourne; Dr. Ashburn Thompson, Sydney; Mr. G. F. Souter, Sydney; Dr. E. Angus Johnson, Adelaide; Dr. Sydney Jamieson, Sydney; Prof. A. Watson, Adelaide; Dr. J. A. G. Hamilton, Adelaide; Dr. W. T. Hayward; Dr. E. J. Morgan, Sydney; Mr. G. T. Taylor, Hobart; Mr. L. Bruck, Sydney; Dr. W. T. Hayward, Adelaide; Dr. J. Lockhart Gibson, Brisbane; Dr. A. B. Brockway, Brisbane; Dr. Cyril E. Corlette, Sydney; Dr. A. E. Martin, Perth, W.A.; Dr. H. S. Newland, Adelaide; Dr. Guthrie Rankin, London; Dr. Hy. Laurie, Melbourne; Mr. P. A. Kob, Brisbane.

BOOKS RECEIVED.

- Medical Examination Questions, University of Edinburgh, Royal College of Physicians, Edinburgh, Royal College of Surgeons, Edinburgh, and Faculty of Physicians and Surgeons, Glasgow. For several years to 1908. Edinburgh: John Currie, 84 Briarbank Terrace. Price, 2s net.
 Cataract Extraction. By H. Herbert, F.R.C.S. Demy 8vo. Price, 12s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.
 Transactions of the Royal Academy of Medicine in Ireland. Vol. xxvi. Edited by James Craig, M.D., F.R.C.P.I. Dublin: John Falconer.
 The Ophthalmic and Cutaneous Diagnosis of Tuberculosis. By Dr. Alfred Wolff-Eisner. Translated from the German by B. J. Bobart. Price, 7s 6d net. London: John Bale, Sons, and Danielsson.
 Medical Gynaecology. By Howard A. Kelly, M.D., F.R.C.S. (Edin.). New York and London: D. Appleton & Co. Sydney: Angus & Robertson.
 The Extra Pharmacopoeia. By Martindale & Westcott. London: H. K. Lewis. Price, 10s 6d net.
 Diseases of the Nervous System. Edited by Archd. Church, M.D. Translated from the German by J. L. Salinge, M.D. New York and London: D. Appleton & Co. Sydney: Angus & Robertson. Price, 28s.
 An Index of Treatment. By various writers. Edited by Robert Hutchison, M.D., F.R.C.P., and H. Stansfield Collier, F.R.C.S. Third edition. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Sydney: Angus & Robertson.
 Legal Responsibility of the Drunkard. By H. Norman Barnett, F.R.C.S. With an introduction by Sir Andrew Reed, Barrister-at-Law. London: Baillière, Tindall & Cox. Price, 2s 6d net. Sydney: L. Bruck.
 The Technique of Vagino-Peritoneal Operations. By E. Wertheim and Th. Micholitsch. Translated into English by Cuthbert Lockyer, M.D., B.S., F.R.C.S. With 138 illustrations. Price, 28s. London: Maxmillan & Co., St. Martin's street. Sydney: Angus & Robertson.

Husbands Practice of Medicine, designed for the Use of Students' and Practitioners. Sixth edition. Rewritten and enlarged. By E. F. C. Leith, M.Sc., M.B., C.M., F.R.C.P. (Edin.), and Robert A. Fleming, M.D., F.R.C.P. (Edin.). Number of pages xxiii + 1141. Price, 12s net. Edinburgh: E. & S. Livingstone, 15 Teviot Place.

An Analytical Index of volumes I to X of the MEDICAL REVIEW. Price, 7s 6d. London: "The Medical Review," 66 Finsbury Pavement.

A Synopsis of Surgery. By E. W. H. Groves, M.S., M.D., B.Sc. (Lond.), F.R.C.S. (Eng.). Bristol: John Wright & Sons, Ltd. Price, 7s 6d net.

On Means for the Prolongation of Life. By Sir Hermarr Weber, M.D., F.R.C.P. London: John Bale Sons & Danielsson. Price, 4s 6d net.

Treatment of Consumption. By W. Camac Wilkinscn, M.D. (Lond.), F.R.C.P. London: MacMillan & Co., Ltd. Price, 10s net.

Encyclopedia and Dictionary of Medicine and Surgery. Vol. ix. Edinburgh: William Green & Sons.

A System of Medicine. By many writers. Edited by Sir Clifford Allbutt, K.C.B., M.D., D.Sc., F.R.C.P., F.P.S., and H. D. Roseston, M.D., F.R.C.P. Vol. iv., part 1. London: MacMillan & Co., Ltd., St. Martin's-street. Price, 25s net.

The following two books have been received from Messrs. Bailliere, Tindall & Cox, whose Australian representative is, Mr. L. Bruck:—

1. Mental Deficiency (Amentia). By A. F. Tredgold, L.R.C.P. (Lond.), M.R.C.S. (Eng.). Number of pages xvi + 391, with 67 illustrations. Demy octavo. Price, 10s 6d net.

2. The Bacteriology of the Eye. By Dr. Theodor Axenfeld, translated by Angus MacNab, B.Sc., M.B., Ch.B., F.R.C.S. Number of pages xv. + 410, with 105 illustrations. Large Octavo. Price, 21s net.

A Manual of Natural Therapy, Hydrotherapy, Massage, Electricity, Diets. By Thos. D. Luke, M.D., F.R.C.S. (Edin.). Bristol: Messrs. J. Wright & Sons. Price, 7s 6d net.

The following two books have been received from Messrs. Hy. Froude and Hodder & Stoughton (Oxford Medical Publications), per Messrs. Angus and Robertson, Ltd., Sydney:—

1. Diseases of the Heart. By James Mackenzie, M.D. 1908. Price, 28s.

2. The Rectum: Its Diseases and Developmental Defects. By Sir Charles B. Ball, F.R.C.S. 1908. Price, 35s.

Students' Handbook of Physiology. By the late Arthur Clarkson, M.B., C.M. (Edin.), and D. A. Farquharson, M.B., C.M. (Edin.). Edinburgh: Messrs. E. & S. Livingstone. Price, 12s net.

Manual of Bacteriology, Clinical and Applied. By R. Tanner Hewlett, M.D., F.R.C.P. Third edition. London: Messrs. J. & A. Churchill. Price, 15s net.

The following two books have been received from Mr. H. K. Lewis, Gower-street, London:—

1. Vaccine Therapy and the Opsonic Method of Treatment. By R. W. Allen, M.D., B.S. (Lond.) Second edition. Price, 7s 6d net.

2. Manual of Infectious Diseases. By E. W. Goodall, M.D. (Lond.), and J. W. Washbourn, M.D. (Lond.), F.R.C.P. Second edition. Price 14s net.

State Board of Health Report, Michigan, year ending June 30th, 1907.

The following nine books have been received from Messrs. Saunders & Co., Philadelphia, per Mr. James Little, of Melbourne:

1. Gynecology and Abdominal Surgery. Edited by Howard A. Kelly, M.D., and C. P. Noble, M.D. Vol. II. Price, 35s per volume.

2. Diseases of the Skin and Eruptive Fevers. By J. F. Shamberg, M.D. Fully illustrated. Price, 13s.

3. Practical Materia Medica for Nurses. By Emily A. M. Stoney. Price, 6s 6d.

4. Obstetric and Gynecologic Nursing. By E. P. Davis, M.D. Price, 8s.

5. A Text-book of Physiology. By W. H. Howell, M.D. Price, 18s.

6. A Text-book of Chemical Anatomy for Students and Practitioners. By D. N. Eisendrath, M.D. Octavo of 535 pages, with 153 illustrations. Price, 21s.

7. Medical Gynecology. By S. W. Bandler, M.D. Octavo of 675 pages, with 135 illustrations. Price, 21s.

8. Pulmonary Tuberculosis and its Complications. By S. G. Bonney, M.D. Octavo of 778 pages, with 189 illustrations, 20 in colours and 60 X-ray photographs. Price, 30s.

9. Saunderson's Question-Compendia, Essentials of Gynecology. By E. B. Cragin, M.D. Sixth edition; revised by F. S. Mathews, M.D. Price, 4s.

Diet in Infancy. By A. Dingwall-Fordyce, M.D., F.R.C.P. (Edin.). Edinburgh and London: William Green & Sons. 1908. Price, 3s 6d net.

The Principles of Hygiene as Applied to Tropical and Sub-Tropical Climates, and the Principles of Personal Hygiene in them as applied to Europeans. By W. J. R. Simpson, M.D. F.R.C.P., D.P.H. London: John Bale, Sons & Danielson, Ltd. Price, 15s net.

The following two books have been received from Messrs. Bailliere, Tindall & Cox, London, whose agent in Sydney is Mr. L. Bruck:—

1. Tuberculosis in Infancy and Childhood: Its Pathology, Prevention and Treatment. By various writers. Edited by T. H. Kelysnack, M.D. Demy 8vo. Price, 12s 6d net.

2. A Manual of Surgery. By W. Rose, M.B., B.S. (Lond.), F.R.C.S., and A. Carless, M.S. (Lond.), F.R.C.S. Seventh edition; demy 8vo, containing 1376 pages, with 554 illustrations. Price, 21s net.

Quain's Elements of Anatomy. Vol. III. Neurology. Editors, E. A. Schafer, Sc.D., F.R.S.; J. Symington, M.D., F.R.S.: T. H. Bryce, M.D. London: Longman's, Green & Co., 39 Paternoster Row. Price, 15s net.

WARNING NOTICES.

INTENDING applicants for any country hospital appointment in Western Australia are recommended to write or telegraph for full particulars to Dr. Thorp, Brookman's Buildings, Barrack-street, Perth, W.A., who has been deputed by the West Australian Branch of the British Medical Association to attend to this work. (Telegrams should prepay five shillings for answer.)

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

MEDICAL MEN who purpose applying for the position of Medical Officer to the Chillagoe or Hampden-Mt. Elliott Hospitals are advised to communicate before doing so with the Hon. Sec., Medical Defence Society of Queensland, 109 Wickham Terrace, Brisbane.

MISS STODDART, Cert. Member A.M.A.—BOWRAL CENTRE.—PATIENTS VISITED IN THE DISTRICT. Arrangements have been made for receiving a limited number of Convalescent Massage Cases needing a bracing climate and attention to diet, etc. For particulars apply to MISS STODDART, Holmleigh, Bowral.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON). MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is cresote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

